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TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY

AT THE

Ninety-Seventh Annual Session,

HELD AT

CONCORD, JUNE 21 AND 22, 1887.

MANCHESTER, N. H.:
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NEW HAMPSHIRE MEDICAL SOCIETY.

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DR. THOMAS HILAND, Concord.
DR. JOHN W. PARSONS, Portsmouth.
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DR. G. D. TOWNE, Manchester.
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DR. LEONARD JARVIS, Claremont.
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DR. C. B. DRAKE, West Lebanon.
DR. M. C. LATHROP, Dover.

Executive Board to Issue Licenses: — D. S. Adams, President; Thomas Hiland, Secretary; John W. Parsons, Associate.

Committee of Arrangements. — Drs. I. A. Watson, Thomas Hiland, A. P. Chesley, H. C. Cummings, and G. M. Kimball, Concord.

Committee on Publication. — Drs. G. P. Conn, Concord; D. S. Adams, Manchester.

The Publication Committee desire to have it understood that the publication of any paper does not necessarily constitute an indorsement by the Society.

Next annual meeting of the New Hampshire Medical Society will be held in Concord, June 19 and 20, 1888.

All communications intended for the Society should be addressed to the secretary, G. P. Conn, M. D., Concord, N. H.

PROCEEDINGS

OF THE

NINETY-SEVENTH ANNUAL SESSION.

TUESDAY, June 21, 1887.

The president and fellows of the New Hampshire Medical Society convened in White's Opera-house at 11 o'clock A. M., June 21, 1887. The president, Prof. Carlton P. Frost, of Hanover, called the convention to order, and introduced Rev. Bradley Gilman, of the Unitarian church of Concord, who opened the meeting with prayer. There was a full attendance of members, amounting to nearly fifty per cent of the whole membership.

Dr. Thomas Hiland, for the Committee of Arrangements, welcomed the Society to Concord, and made the announcement that dinner would be served at the Eagle Hotel at the usual hour, and that the committee were ready to do all in their power to facilitate the business of the meeting, as well as to render the visit of the members as pleasant and agreeable as possible.

The president appointed the following committees:

Committee on Reception of Delegates. — Dr. J. W. Parsons, Portsmouth; Dr. A. W. Abbott, Laconia; and Dr. Geo. W. Hatch, Wilton.

Committee to Examine and Report on Patients. — Dr. L. B. How, Manchester; Dr. S. C. Whittier, Portsmouth; Dr. C. B. Hammond, Nashua; Dr. H. A. Weymouth, Andover; and Dr. I. H. Adams, Derry Depot.

Committee to Audit Treasurer's Accounts. — Drs. M. W. Russell and Thomas Hiland, Concord.

On motion of Dr. Hill, of Dover,

Voted, To dispense with the reading of the records of the last meeting, as the same had been duly published and distributed to the members.

The chairman of the Committee on the Reception of Delegates, Dr. Parsons, of Portsmouth, reported, and introduced to the president Dr. John M. Harlow, of Woburn, delegate from Massachusetts; Dr. Orlando B. Douglas, from New York; Dr. W. S. Platt, of Torrington, from Connecticut; and Dr. Thomas A. Foster, of Portland, from Maine. They were invited to seats on the stage and to participate in the exercises of the convention as well as to be the guests of the Society for the day.

The report of the Council then being in order, it was read by the secretary, as follows:

REPORT OF THE COUNCIL.

CONCORD, Monday Evening, June 20, 1887.

The Council met at the office of the secretary at 8.30 o'clock in the evening, and was called to order by the president, Dr. C. P. Frost, of Hanover.

The roll was called by the secretary and the following members answered to their names: Drs. J. B. Pettengill, Amherst; Edward Abbott, Tilton; H. C. Cummings, Concord; F. B. Perkins, Londonderry; C. B. Nichols, Franklin Falls; G. H. Sanborn, Henniker; J. H. Cutler, Peterborough; D. B. Nelson, Laconia; O. D. Eastman, Woodsville; C. W. Tolles, Claremont; D. W. Jones, Portsmouth.

On motion, the vacancies in the Council were filled from the following members of the Society, who were present:

Dr. John Wheeler, Pittsfield, for D. M. Currier, Newport; Dr. D. S. Adams, Manchester, for Dr. Pearsons, Manchester, deceased; Dr. J. W. Bean, Lyme, for Dr. Geo. W. Hunt, Cornish; Dr. Geo. Cook, Concord, for Dr. C. A. Allen, Acworth; Dr. I. A. Watson, Concord, for Dr. M. C. Lathrop, Dover; Dr. A. L. Emerson, Chester, for Dr. I. H. Adams, Derry Depot; Dr. J. C. Eastman, Hampstead, for Dr. Frank Blaisdell, Goffstown; Dr. G. M. Kimball, Concord, for Dr. C. A. Morse, Newmarket; Dr. C. R. Walker, Concord, for Dr. M. C. Dix, Hinsdale.

The vacancies being filled, the president announced that the Council was ready to attend to any business that might properly be brought before them.

Dr. John Wheeler, of Pittsfield, presented to the Society a black-walnut gavel and block that were made from wood that grew on the grounds about the mansion of the late Dr. Josiah Bartlett of Kingston. The historical facts were given by Dr. Wheeler substantially as follows: The wood was handed to the donor on the mansion grounds by Levi S. Bartlett, a great-grandson of Dr. Josiah Bartlett. The mansion was built by Dr. Bartlett 112 years ago, and was occupied by his son, Dr. Ezra Bartlett. It is a spacious residence, in fine condition, and is now occupied by the widow of Dr. Levi S. Bartlett, who was the son of Dr. Ezra Bartlett. She is a pleasant and intelligent lady, who has a just appreciation of the interesting history connected with the mansion. At the visit made by Dr. Wheeler he was treated very courteously by Mrs. Bartlett, who showed him things of special interest about the place. As the visitor's object was to obtain wood for a gavel he inquired of Mrs. Bartlett if the elms which adorned the grounds were there during the life of Dr. Josiah Bartlett. Her answer was that she was not certain about it, but that there are a black-walnut tree and a lime tree which were set out by him. It was the doctor's custom while traveling on horseback to and from Philadelphia as a member of the Continental Congress to be accompanied by a servant. On one of his return journeys, probably the time after he had signed the Declaration of Independence, as he held his seat only from 1775 to 1778, he had packed upon the horse of his servant sprouts of black-walnut and lime trees, which were planted in the front yard of his home, and grew to the trees from one of which wood for the gavel and block was obtained.

Dr. Bartlett was a very remarkable man. He was born in Amesbury, Mass., in 1729, and began the practice of medicine at Kingston in 1750. Four years later he established himself in permanent fame by his substitution of a tonic treatment, Peruvian bark, for the usual treatment of malignant sore throat that prevailed. He was made a magistrate and given command of a regiment by the last colonial governor, John Wentworth, but was deposed by Gov. Wentworth for favoring the colonists, who desired separation. He was elected to the Continental Congress, and was the first member to vote for the Declaration of Independence and the next to sign it after John Hancock. He was also a prominent member of the convention which adopted the Constitution of the United States. He resigned his seat in Congress to accept the position of chief justice of the court of common pleas of New Hampshire, in 1779, and was promoted to be a justice of the superior court in 1784, and chief justice in 1788. He was elected president of the State in 1790, the executive bearing that title before the constitution was adopted, and was

the first governor of the State under the constitution, and was re-elected. He was chiefly instrumental in the formation of the New Hampshire Medical Society, and as governor, in 1791, signed its charter. He was elected its first president. Although his duties were many, he devoted his time mainly to the practice of his profession, which he loved and honored. He found little time to indulge in social pleasures, and was plain in dress, frugal in habits, and of undoubted integrity. He accompanied Gen. Stark as medical director in that New Hampshire expedition which culminated so gloriously in the battle of Bennington. He died May 19, 1795, aged 65 years, and his remains were buried in the old cemetery in Kingston.

President Frost replied as follows:

"On my own account, and in behalf of those who shall follow me as presiding officers of this Society, I would most heartily thank Dr. Wheeler for his beautiful, useful, and historically valuable gift. It will always remind us of our obligation to the representative who so greatly honored our State in its earliest days, and who also raised our profession into higher honor by his successful labor for this Society as its founder and first president.

"May good order ever be observed in the deliberations of our Society, and may all who shall be honored with the authority to hold these emblems, in turn honor the Society by the justice and wisdom which shall characterize their official decisions."

On motion of Dr. I. A. Watson, of Concord, the following resolutions were unanimously adopted:

WHEREAS, John Wheeler, M. D., of Pittsfield, N. H., an honored ex-president of the New Hampshire Medical Society, has presented to the Society a gavel and block made from a black-walnut tree planted at the old homestead by the hand of Hon. Josiah Bartlett, M. D., signer of the Declaration of Independence, first governor of New Hampshire, and first president of the New Hampshire Medical Society; therefore, be it

Resolved, That the thanks of this Society be extended to the donor for this useful and historic gift.

Resolved, That the secretary be directed to cause a silver plate to be placed upon the block, with the following inscription thereon: "Presented to the New Hampshire Medical Society, June, 1887, by John Wheeler, M. D., of Pittsfield, N. H."

Resolved, That the secretary be directed to enter upon the records of the Society all facts of historical interest connected with the gift, together with these resolutions.

The secretary submitted the following applications for membership, which were duly considered, and each individual application, with its indorsements and recommendations, was duly investigated, and having been well vouched for, they were unanimously recommended to the Society for membership:

CHARLES W. GROSS, M. D., Milton Mills.
HENRY E. NEWELL, M. D., Derry Depot.
STEPHEN VITTUM, M. D., Laconia.
JOSEPH P. ST. GERMAIN, M. D., Keene.
FREDERIC W. JONES, M. D., New Ipswich.
JOHN F. ROBINSON, M. D., Manchester.
GEORGE A. UNDERHILL, M. D., Nashua.
WALTER K. WADLEIGH, M. D., Hopkinton.
WILLIAM R. GARLAND, M. D., Campton Village.
WILLIAM A. MEGRATH, M. D., Loudon.
OSMAN B. WAY, M. D., Claremont.
N. HARVEY SCOTT, M. D., Wolfeborough.
MELVIN A. HARMON, M. D., Ossipee.
GEORGE W. LOUGEE, M. D., Freedom.
JOHN A. HAYES, M. D., Somersworth.
HENRY MARBLE, M. D., Gorham.

Dr. Valentine Manahan, of Enfield, and Dr. L. J. Graves, of Claremont, were placed on the retired list on account of age.

Dr. George Cook, on account of continued ill health of Dr. E. S. Berry, of Concord, and the great uncertainty of his being able to meet with the Society again, offered the following:

Resolved, That the Society tender to Dr. Berry and his family our sympathy in his misfortunes, and that his dues be remitted and his name be placed upon the retired list.

Adopted.

A request from the Chairman of Finance Committee of the International Medical Congress for the Society to appropriate money to aid the Congress financially was laid on the table, and the secretary was instructed to reply that the Society could not vote money for such purposes.

Dr. Cook offered the following resolution:

Resolved, That when members of this Society remove into other States it is for their interest to join the medical societies of

the State and district in which they reside, and therefore, after having dropped from our rolls, it is not advisable to re-instate such members unless they again become residents of the State.

Adopted.

The chairman of the Committee on the History of the Society and of Medicine in the State, Dr. Watson, reported progress, and on motion of Dr. Nichols the work of the committee was approved, and the committee continued.

The records of the Board of Censors were read by Dr. Cook, and approved, except the licensing of one Dr. George R. Fellows, of Seabrook, who was licensed on a diploma from the Druidic University of Maine, and as it has been shown that the said university was a fraudulent institution, and that during the past session of the Legislature of Maine the charter of said university was repealed in consequence of its fraudulent transactions, it was voted to instruct our Board of Censors to take proper means to revoke the license of said George R. Fellows. The Board have licensed as follows:

Date.	Name.	Residence.	Place of graduation.	Date of graduation.	By Dr.
1886.					
July 1	John F. Robinson...	Manchester....	Harvard	1886	Adams
July 10	Bradford Allen.....	Nashua.....	Harvard	1883	Adams
July 16	William E. Rust....	Keene	Castleton, Vt.....	1845	Cook
July 22	F. Emerson Daigneau	Great Falls....	Univ. of Vermont....	1886	Hill
Aug. 2	Emile A. Sylvain....	Manchester....	Univ. Lavalle, Ca....	1883	Adams
Aug. 19	Ellen A. Wallace ...	Manchester....	Women's Coll., N.Y.	1885	Cook
Sept. 19	John J. Berry.....	Portsmouth....	Univ. N. Y.....	1878	Hill
Oct. 23	George E. Beaudoin.	Rochester	Univ. Victoria, Ca...	1884	Hill
Nov. 18	Theodore M. Togus.	Hooksett	Univ. of Vermont....	1886	Cook
Nov. 29	Eugene B. Dunbar..	Manchester	Dartmouth.....	1886	Adams
Nov. 29	William A. Megrath.	Loudon.....	Dartmouth.....	1885	Cook
Dec. 10	Ansel I. Miller.....	Brattleboro', Vt	Coll. P. and S., N. Y.	1884	Cook
Dec. 15	Aime H. Allard.....	Suncook.....	Univ. Victoria, Ca...	1886	Cook
Dec. 27	Walter K. Wadleigh.	Hopkinton	Dartmouth	1886	Cook
Dec. 28	William L. Kelsey ..	Manchester....	Jefferson Med. Coll. Pa	1876	Adams
1887.					
Mar. 23	Georgiana Wilson...	Manchester....	Toledo Med. Coll., O.	1887	Adams
Mar. 28	George E. Osgood...	Barrington.....	Harvard.....	1887	Hill
May 11	Frank E. Colby.....	Epsom	Dartmouth.....	1886	Cook
June 3	Alexim T. Cote.....	Manchester....	Univ. Victoria, Ca...	1879	Adams
June 4	Clarence W. Downing	Manchester....	Univ. of Vermont....	1885	Adams
June 8	Charles H. Holcombe	Milford.....	Harvard.....	1886	Adams

Dr. Cook reported the proceedings of the Censors:

1886, June 16. — The Board, after due notice and hearing, revoked the license of Dr. William P. Baird, which had been granted September 28, 1880. Said Baird claimed to be seeking

a location in the State at the time, but has turned out to be a traveling quack.

1887, February 9. — Board met at Manchester. Dr. Egbert B. Henion appeared with counsel and desired a license. Said Henion presented a diploma from a regular school. License was refused on the ground of being unworthy of public confidence. He showed himself to be another traveling quack.

1886, December 7. — Meeting of the Board at Dover. "Dr." Julian B. Ayer, of Rochester, appeared with counsel and desired a license. Said Ayer claimed to have a diploma from an English school, but had left it at home; was willing to be examined for a license. Written questions in anatomy, physiology, practice of medicine, materia medica, obstetrics, and gynecology were submitted. Ayer declined to be examined in surgery, as he did not want to practice in that department. The examination extended over six hours, and the applicant was kept busy in writing his answers. The result was an average in the six departments of 26.5 per cent. License was refused. Said Ayer then filed a protest with the secretary of the Board against the action of the Board, alleging among other things that one member of the Board had expressed an opinion unfavorable to him (Ayer) before the examination, and therefore was disqualified from acting in the case, and prayed for a new examination before the other members qualified to sit. After consultation with counsel it was decided to give the applicant another examination before the majority of the Board, granting the prayer.

Ayer then fell back upon our old charter, which says the censors shall deliver lectures and direct instruction to those who may come before them for license upon examination. He demanded time to study, required us to lecture and point out what instruction he required. This we did, and when the applicant said he was ready for the second examination, it was had, viz.: at Manchester, May 26 and 27. All the time was given in the examination that was asked, which was conducted on just the same plan as the first one. The result was an average of 55.4 per cent. License was refused.

Respectfully submitted.

GEORGE COOK, M. D.,

Secretary of the Board.

The treasurer, Dr. D. S. Adams, of Manchester, submitted the following names of members who were four years in arrears, and on motion of Dr. Nichols it was ordered that these members have until the close of the annual meeting in which to settle their dues; and if not done by that time, the treasurer shall drop their names from the roll: Dr. D. L. Lock, Epsom; Dr. Geo. C. Howard, Lawrence, Mass.; Dr. S. W. Davis, Tilton; Dr. D. S. Clark, Derry.

The resolution of Dr. Adams introduced last year, relative to the admission of new members, was discussed, and on motion of Dr. Sanborn, of Henniker, it was laid on the table.

Dr. C. B. Nichols, of Franklin Falls, introduced the following resolution:

Resolved, That a committee be appointed to be known as a Committee of Review, consisting of three members, of whom the secretary of the Society shall be chairman. The duties of said committee shall be to select from the members of the Society three members, each to prepare and present a paper to them upon some subject relating to medicine, at least twenty days before the annual meeting; said papers, if of sufficient standard of excellence, to be read at the annual meeting. It shall be their further duty to select some member of the Society to open the discussion upon the paper, and that the paper be sent to the member so selected at least ten days prior to the annual meeting.

The report of the Council was accepted, excepting the resolution of Dr. C. B. Nichols, which was referred back to the Council for further consideration and perfection.

The roll of applicants for membership which had been recommended by the Council was called, and the aforesaid list having answered to their names, it was voted, on motion of Dr. Hill, of Dover, that the secretary cast the list as herewith made up as the ballot of the Society, and thereby unanimously elect them members of the Association. This was done, and the new members appeared and signed the constitution and by-laws, and then took part in the proceedings of the convention.

The business of the Council being concluded, a short recess was taken for the purpose of allowing the new members to sign the by-laws and constitution.

At 12 o'clock the vice-president, Dr. S. W. Roberts, of Wakefield, took the chair, and the Society listened to the annual address by the president, Dr. C. P. Frost, of Hanover, which, on motion of Dr. Hill, of Dover, was referred to the Committee on Publication.

Dr. William Child, of New Hampton, read a report upon Obstetrics; or, "Thirty Years' Experience in a Country Practice."

The discussion was opened by Dr. J. W. Parsons, of Portsmouth, and was participated in by several other members.

The paper was referred to the Committee on Publication, after which the Society adjourned until 4 o'clock P. M., in order to attend the anniversary dinner at the Eagle Hotel.

ANNIVERSARY DINNER.

The annual dinner was served at the Eagle Hotel at 1.30 P.M., and was in keeping with the high reputation of the house.

Grace was said by the Rev. Bradley Gilman of the Unitarian church of Concord, and the anniversary chairman, Dr. M. H. Felt, of Hillsborough, presided.

The post-prandial exercises were opened by Dr. Felt in a happy manner that made all feel amply repaid in the social exercises that followed the dinner hour.

The sentiments and speakers were as follows:

"The New Hampshire Medical Society,"—by Prof. C. P. Frost.

"The New York Medical Society,"—by Dr. O. B. Douglas, New York.

"The clergy: physicians of the soul, who take charge of all cases given up by the doctors,"—Rev. Bradley Gilman, Concord.

"The doctor's dinner hour: a delightful uncertainty,"—Dr. W. S. Leonard, Hinsdale.

"The medical profession: its past history and present position are prophetic of a noble future,"—Dr. M. W. Russell, Concord.

"The State of New Hampshire represented in the Declaration of Independence by a physician. Her sons have ever adorned

the various professions and occupations with a standard worthy the emulation of all,"—His Excellency Gov. Chas. H. Sawyer, Dover.

Governor Sawyer spoke as follows:

"*Mr. Chairman:*

"It gives me pleasure to attend this annual gathering of the Medical Society of New Hampshire and meet men who have devoted their life-work to the cause and relief of suffering humanity. The true physician who loves his profession may be justly regarded as the friend and benefactor of his fellow-men. His calling naturally tends to an enlarged knowledge of human nature, and also to develop those benevolent and charitable traits which secure the confidence of those who seek his advice when in distress of body or mind. The life of the physician being one that leads to study and reflection, his sphere of usefulness is enlarged, so that it is not always strictly confined to the more legitimate duties of the profession. He is often heard in the councils of the nation, and in times of national distress has always rendered honorable and distinguished service to his country.

"As Americans we are proud of the fame of Dr. Benjamin Rush, who was not only one of the most eminent practitioners and scientists of his day, but was also one of the leading spirits of the Revolution. A signer of the Declaration of Independence, he was also one of the framers of the national constitution, the adoption of which on its one hundredth anniversary is to be happily celebrated in September next. In the same reverence is also held the memory of Dr. Joseph Warren, who led the patriot forces at Bunker Hill, and gave his life for his country on that memorable field. Of the eighteen members of the Continental Congress from New Hampshire three were physicians. Dr. Josiah Bartlett, afterwards governor of the State, was the second to sign the Declaration of Independence, and presumably the first to vote "Yes" upon its adoption. Doctors Matthew Thornton and Nathaniel Peabody also honorably represented the State in the Continental Congress.

"Other members of the fraternity who have honorably distinguished themselves in political life might be mentioned, but the

list would be too long, and time will not permit. The splendid record of the medical and surgical department of the army in the late civil war is a matter of history, which we may regard with equal pride and satisfaction.

"Medical science, through the State Board of Health, is rendering a valuable service to the State. The people of New Hampshire are naturally conservative, and were perhaps slow to recognize the importance of such an establishment. The efficiency of the board and the benefits accruing from its work are now so apparent, however, in the direction of the prevention of epidemic and contagious diseases, that it has become one of the most popular departments of the state government.

"Gentlemen, I consider it an honor to be present at your gathering, and thank you for the privilege."

The Governor was welcomed with a warm and hearty greeting, and his remarks brought out applause from all.

"Our profession: its services so urgently demanded, yet never wanted,"—Dr. D. W. Jones, Portsmouth.

AFTERNOON SESSION.

Called to order at 4 P. M., the president in the chair, when the reading of papers was continued.

Dr. George H. Sanborn, of Henniker, read an oration on Homœopathy, which was discussed by Dr. Hill, of Dover; and Dr. G. M. Kimball, of Concord, read a report upon "Newmarket's Epidemic of Diphtheria in 1885–86," which had been prepared by Dr. C. A. Morse, of Newmarket, but who was unable to be present. The paper was discussed by Dr. Conn, of Concord, and Dr. Hill, of Dover. Dr. F. B. Perkins, of Londonderry, read a paper upon "Laceration of the Perinæum," which was discussed by Dr. S. C. Whittier, of Portsmouth; and Dr. Luther Pattee, of Manchester, read a "Report on Therapeutics" that was discussed by Dr. Nichols, of Franklin Falls, and others. All of these papers were referred, after which the Society was adjourned until 8 o'clock.

EVENING SESSION.

The Society convened according to adjournment, and was called to order by President Frost, when Dr. J. H. Cutler read a "Report upon Surgery," which was discussed by Prof. Smith, of Hanover; and Dr. W. S. Leonard, of Hinsdale, read a dissertation on "The Confidence of the Public in Non-professional Prescriptions." This was discussed by Dr. Adams, of Manchester, and several others. Both of these papers were referred to the Committee on Publication.

Dr. J. J. Berry, of Portsmouth, gave his report on the Necrology of the Society, which was accepted, and will be found in its proper place.

The Society then adjourned until 8 o'clock A. M. Wednesday morning.

MORNING SESSION.

WEDNESDAY, June 22, 1887.

President Frost not being present, the Society was called to order by the vice-president, Dr. Roberts.

Dr. Leonard, for the delegates to Dartmouth Medical College, submitted the following report, which was accepted:

REPORT OF THE DELEGATES TO THE DARTMOUTH MEDICAL SCHOOL.

To the New Hampshire Medical Society:

MR. PRESIDENT AND FELLOWS, — In response to a notification from the Dean of the Medical Faculty your delegates attended the annual examination and commencement exercises of the Dartmouth Medical School, November 22 and 23, 1886, and respectfully present the following report:

The school was found in a flourishing condition, with a goodly number of students. Nineteen candidates for graduation presented themselves for examination before your delegates, having previously been subjected to a careful and thorough examination by the Faculty, and those papers were offered for our inspection and criticism. Each applicant for a degree was also examined orally by your delegates and those appointed by the Vermont Medical Society, in the various branches of Medical Science,

and so satisfied were we with the proficiency shown that all the candidates were admitted to a degree.

The members of the graduating class seemed to be earnest men, full of enthusiasm for their chosen profession, and gave abundant evidence of close study, as well as exact instruction on the part of their teachers, and it gives us great pleasure to commend them as graduates who will hereafter be an honor to their Alma Mater.

Your delegates were shown the Anatomical Museum, the Stoughton Museum of Pathological Anatomy, and the Cabinet of Materia Medica, and the Medical Botany, and saw much to praise in their indispensable appliances to medical culture, constantly increasing as these are, year by year, in breadth and volume.

The recent lengthening of the lecture term in this institution to twenty weeks, the private medical instruction given by resident members of the Faculty for six months in each year, following the regular course of lectures, the opportunities for liberal learning and culture freely offered by the Academic Department of Dartmouth College, the healthfulness of the locality, and its distance from the gayeties and frivolities of the great cities, all combine to render this ancient college town one of the most favored places for the earnest student of medicine whose heart is in his work.

Your delegates desire to acknowledge the many courtesies extended to them by the Faculty during their visit, and to commend the New Hampshire Medical Institution as worthy of the cordial indorsement and support of every member of this Society.

GEO. D. TOWNE, M. D.,
WM. S. LEONARD, M. D.,
Delegates from N. H. Med. Society.

The secretaries of the District Societies submitted reports, and the delegates to the State Medical Societies, as well as to the American Medical Association, reported the several meetings which they had attended, which were accepted and referred for publication.

President Frost took the chair, and the special order for the election of officers came up at 9 o'clock, and the following were elected :

PRESIDENT.

DR. S. W. ROBERTS, Wakefield.

VICE-PRESIDENT.

DR. S. C. WHITTIER, Portsmouth.

SECRETARY.

DR. GRANVILLE P. CONN, Concord.

TREASURER.

DR. DANIEL S. ADAMS, Manchester.

ANNIVERSARY CHAIRMAN.

DR. WILLIAM T. SMITH, Hanover.

EXECUTIVE COMMITTEE.

DR. CHARLES R. WALKER, Concord.
DR. GEORGE D. TOWNE, Manchester.
DR. JOHN R. KIMBALL, Suncook.

The Executive Committee, through the chairman, Dr. Walker, made the following report of members of the Council, Board of Censors, and Committee of Arrangements, together with the delegates to Dartmouth Medical College and other State Societies; also a programme for the next annual meeting, all of which was accepted, and the committee continued.

COUNCIL.

DR. J. B. PETTENGILL, Amherst.
DR. EDWARD ABBOTT, Tilton.
DR. H. C. CUMMINGS, Concord.
DR. G. H. SANBORN, Henniker.
DR. J. H. CUTLER, Peterborough.
DR. D. B. NELSON, Laconia.
DR. O. D. EASTMAN, Woodsville.
DR. FRANK BLAISDELL, Goffstown.
DR. C. W. TOLLES, Claremont.
DR. C. A. MORSE, Newmarket.
DR. D. W. JONES, Portsmouth.
DR. M. C. DIX, Hinsdale.
DR. J. J. BERRY, Portsmouth.
DR. M. C. LATHROP, Dover.
DR. C. B. NICHOLS, Franklin Falls.

DR. W. O. JUNKINS, Greenland.
DR. G. M. KIMBALL, Concord.
DR. G. W. WEYMOUTH, Grafton.
DR. ROBERT BURNS, Plymouth.
DR. G. F. MUNSEY, Greenville.

BOARD OF CENSORS.

DR. D. S. ADAMS, Manchester.
DR. THOMAS HILAND, Concord.
DR. JOHN W. PARSONS, Portsmouth.
DR. C. B. HAMMOND, Nashua.
DR. G. D. TOWNE, Manchester.
DR. I. J. PROUTY, Keene.
DR. LEONARD JARVIS, Claremont.
DR. J. C. EASTMAN, Hampstead.
DR. C. B. DRAKE, West Lebanon.
DR. M. C. LATHROP, Dover.

DELEGATES.

Maine. — P. A. Stackpole, Dover; C. W. Gross, Milton.
Vermont. — O. D. Eastman, Woodsville; Frank Moffett, Lit-
:ton.
Massachusetts. — C. P. Frost, Hanover; C. P. Bancroft, Con-
ırd.
Rhode Island. — C. B. Nichols, Franklin Falls; H. C. Cum-
ings, Concord.
Connecticut. — C. B. Hammond, G. A. Underhill, Nashua.
American Medical Association. — *Voted,* That the executive
ɔmmittee and secretary fill our delegation from such members
ı volunteer to represent the Society at these congresses.
Delegates to Dartmouth Medical College. — Dr. William S.
eonard, Hinsdale; Dr. M. H. Felt, Hillsborough.
Committee of Arrangements. — Drs. I. A. Watson, Thomas
liland, A. P. Chesley, H. C. Cummings, G. M. Kimball, Con-
ord.

ORATORS.

DR. D. S. ADAMS, Manchester.
DR. J. J. BERRY, Portsmouth.

SUBSTITUTES.

DR. ROBERT BURNS, Plymouth.
DR. A. P. CHESLEY, Concord.

Dissertation. — Dr. Frank Blaisdell, Goffstown.

Dissertation, Medicine versus Nature. — Dr. P. A. Stackpole, Dover.

Report on Surgery. — F. A. Stillings, Concord.

Report on Therapeutics. — Dr. M. C. Lathrop, Dover.

Report on Necrology. — Dr. J. J. Berry, Portsmouth.

The treasurer, Dr. Daniel S. Adams, of Manchester, submitted the following report, which was accepted:

TREASURER'S REPORT.

1886.			DR.
June 15.	To cash on hand	$597 57	
16.	To dues at annual meeting . .	150 00	
16.	To dues paid Conn — L. G. Clark, $2; D. B. Nelson, $2 . .	4 00	
16.	To cash from Censors — L. G. Hill, $2; George Cook, $12; D. S. Adams, $7	21 00	
16.	To fees from new members (twelve)	60 00	
1887.			
June 20.	To dues since last meeting . .	108 00	
	Total		$940 57

1886.			CR.
June 16.	By cash paid Conn, postage, printing, etc.	$42 85	
16.	By cash paid committee of arrangements	5 00	
16.	By cash paid Charles R. Walker, postage	28	
16.	By cash paid L. G. Hill, expenses as censor	4 87	
16.	By cash paid George Cook, expenses as censor . . .	10 00	

June 16.	By cash paid D. S. Adams, expenses as censor . . .	9 00	
16.	By cash paid G. P. Conn, services as secretary	50 00	
Aug. 11.	By cash paid A. J. Shurtleff, reporting	12 00	
Nov. 12.	By cash paid for messenger services on printing	3 60	
12.	By cash paid for postage to date .	3 20	
30.	By cash paid for collecting bank checks	35	
Dec. 22.	By cash paid John B. Clarke, printing Transactions . . .	177 65	
1887.			
June 20.	By cash paid for postage, stationery, etc.	9 60	
	Total		$328 40
	Cash on hand		612 17
			$940 57

Examined and found correctly cast and properly vouched.

CHARLES R. WALKER, M. D.
A. P. CHESLEY, M. D.

CONCORD, June 21, 1887.

Dr. How, of Manchester, moved that the secretary be requested to return the thanks of the Society to His Excellency the Governor for his very felicitous address, and request a copy for publication; adopted, and his remarks may be found in the report of the anniversary dinner.

On motion of Dr. Whittier, of Portsmouth, it was

Voted, To pay the secretary fifty dollars for his services the past year.

On motion of Dr. Conn, of Concord, it was

Voted, To pay the treasurer twenty-five dollars for his services, and to refer the matter of the treasurer furnishing bonds to the Council for adjustment.

The Board of Censors met and reported the following organi-

zation: Dr. D. S. Adams, Manchester, chairman; Dr. Thomas Hiland, Concord, secretary; and the chairman, secretary, and Dr. J. W. Parsons, of Portsmouth, were chosen the executive committee of the Board of Censors.

No further business being presented, on motion of Dr. Cook, of Concord, the Society adjourned until the third Tuesday of June, 1888.

GRANVILLE P. CONN,
Secretary.

PRESIDENT'S ADDRESS.

DR. C. P. FROST, OF HANOVER.

Fellows of the New Hampshire Medical Society:

It is my pleasant duty to welcome you to another of the fast-recurring anniversaries, the ninety-seventh, of our State Medical Society, and we trust that this assembling of ourselves together will prove an occasion of much advantage to all who have, for this brief season, turned aside from the daily routine of a professional life.

The wisdom of the fathers in our profession in this State is shown by their endeavors to elevate the standard of the profession, and increase its power for good by the thorough dissemination of all known facts affecting the science and art of medicine in every practicable way, and especially by bringing together, as frequently as might be, those who had a common purpose in advancing the interests of our humane calling.

In the early days of our Society the opportunities for obtaining information by periodicals and printed books were by no means as abundant as they now are; indeed, the frequent visits of the ubiquitous book agent and the daily circulars make it certain that now, certainly, "of making medical books there is no end." Then the voice of a speaker was much relied upon to communicate the ideas which should very likely afford the main mental pabulum for long seasons to those so fortunate as to hear them. At present we are almost surfeited with medical papers of all qualities, bringing to us from all parts of the world weekly reports of the progress of the science. A less necessity of coming

together rests upon us than upon our predecessors, if the acquisition of knowledge be its sole object. Much, however, can be gained by us in the sifting of ideas and in comparing methods, if we freely discuss the papers here presented.

The acquisition of useful knowledge was not the whole aim of the founders of our Society, nor should it be all we seek. It is of great value to meet here in social gathering so many of our fellows in a common work. It is much that we may make the acquaintance of those who are entering our Society, as well as that we may renew the acquaintances formed in years that are gone; that we may speak of the good and true men who have left us, and of their record, a legacy to us and our Society; that we may get refreshment and encouragement for the difficult and often discouraging labors that we must undertake.

By these meetings professional jealousies, if such exist, are likely to be softened, and business rivalries shorn of much of their evil. That member of the profession who persists in standing by himself loses much of profit as well as of enjoyment by reason of his isolation. We need these meetings to aid us to estimate ourselves properly, as well as to get proper estimates of our fellows.

Much as we have occasion to congratulate ourselves on the number who yearly attend our meetings, and much as we may prize the number and the character of the papers presented, we still think that there is chance for improvement in more thoroughly enlisting a larger number in the work of our meetings. The papers read should only exceptionally be allowed to exceed the allotted twenty minutes; then, as has been arranged for this meeting, they should be followed by discussions, opened by some one previously notified to be prepared for the task. He should be followed briefly by volunteers, each one speaking to the subject, and being careful to speak because he has something to say, and that something said, let him stop. Nor should any one have the floor twice until all have had opportunity to be heard. In illustrating the importance of sticking closely to the subject in hand, a recent writer has said: "For an individual to relate a case of croup when the subject of fracture of the radius is under discussion is sufficient to cover the entire meeting with a wet blanket." Let no one feel that his field of observation is so lim-

ited that his voice should not be heard. He may have thought out some valuable conclusion from one case carefully observed, and as carefully considered on some of his long and otherwise dreary rides, that may be worth more than all else said upon the subject.

The time spent here by a majority of those who attend our meetings is much too short if they would get the full benefit possible. If each member would be as careful to secure as large a load of valuable ideas as many do of pharmaceutical preparations, the results would more fully repay the trouble of attendance.

The lusty young Western infant that has lately kicked so vigorously at the doors of Congress for admission to the family of States, Dakota, has a medical society which last week held a three days' session of its sixth annual meeting. Cannot we afford to devote the greater part of two days to our annual meetings, rather than crowd so much into a space practically less than a day?

Our hearts are saddened to-day as we miss from our number two of our fellows, who had been honored by this Society with its highest office, and whose faces we were always sure to see at our meetings, and whose hearts were always enlisted in everything which should advance the interests of the Society and the profession.

Dr. L. M. Knight, a man whose warm heart and genial ways had endeared him to all who knew him, has passed away after reaching the ordinary limit of human life. He has left an honorable record as a physician, as a surgeon in the service of his country, as a good citizen, and a Christian gentleman.

Dr. A. H. Crosby, always ready with a pleasant word and a cordial greeting, ever seeking to promote the interests of those who came to him for professional counsel, or aid in any emergency, was suddenly called away in the prime of professional life and usefulness. Highly esteemed as a surgeon by inheritance and by his scientific attainments and skill, receiving the confidence of his patrons, who were many and widely scattered over the State, he honorably closes, for the present at least, the list of distinguished teachers and practitioners in his branch of a family whose name will be long remembered in the State and in this county.

The etiology of disease has, from the earliest days, largely occupied the attention of those who have endeavored to relieve its effects.

The whole history of medicine abounds in statements of the belief of those who thought and wrote most on this subject. The mystery of disease was, if possible, greater than the mystery of medicine. From the days when the ill-will of the gods or their quarrels were believed to be the cause of human troubles and diseases to the days when witches were thought to pinch, poison, and torment in every evil, occult way their victims, and even to the present time, causes absurd as well as causes either but slightly understood or wholly unknown have been assigned for the ills to which flesh is heir. The more reasonable belief that disease is subject to law, as are the other phenomena of life, has led to a more scientific study of its etiology and to the adoption of better methods for obviating its effects.

The most recent theory in regard to the causation of disease, at least the theory whose study and elucidation has occupied the very careful attention of the investigators in the field of medicine, and has led to the most satisfactory results in many respects, is the germ theory, or the theory which rests on the belief that many diseases are caused by the introduction into the body from without of certain minute organisms whose development and reproduction cause such changes in the fluids and solids of the body that their normal vital actions are dangerously interfered with. Nearly fourteen years ago it was my privilege to hear that distinguished teacher of physiology, Dr. J. C. Dalton, use these words in an address before the New York Academy of Medicine: "If there be any one direction in which progress is now so marked as to constitute a dominant feature in the present state of medicine, and to embrace a practically new medical idea, I should say it was that of the origin and propagation of disease by independent organic germs."

Many of the facts upon which this theory rests have long been recognized, and have been commented upon for many years, and although it cannot be considered as of altogether recent origin, still its study has developed much that is new, and has brought forward into the realm of undisputed truth much that was formerly simply speculation.

This theory had ground for acceptance by those who had carefully studied the history of the exanthematic diseases. The fact that some of these diseases owed their origin to the direct or indirect contact with one suffering from the disease by a suitable subject for it, and that it could be traced to no other source (and hence called contagious), would lead readily to the belief that there was *something* communicated from the sick to those in health. Let us now briefly trace the steps by which this theory has established itself in so many minds as worthy of acceptance.

First, the fact has long been known that certain parasites exist within the body, others upon its exterior. The tapeworm need only be cited as an example of the former class. In its fully developed form in the intestines, or as found in its undeveloped conditions in various parts of the body, it unquestionably greatly interferes with the normal performance of function which is essential to health. The study of the natural history — the life and modes of propagation — of this and of other like parasites shows that their germs enter the body in a very minute size, conveyed thither in the food, only reaching their perfect development under certain favorable conditions.

Then, the history of parasites of both animal and vegetable origin upon the exterior of the body shows a like dependence upon the implantation on the skin of certain very minute germs, whose favorable development results in disease, and whose destruction cures or prevents the malady. For an example we cite the *Acarus scabie*, the knowledge of whose habits had been long ago studied, and whose natural history was then understood, though its practical value was not appreciated, and so the facts were overlooked. The deposition of the eggs of the female in galleries excavated in the skin, and their development in due time into the likeness of the parent, a process productive of the local discomforts of the disease, resemble distantly the effects claimed in other cases.

In the instance of *Trichina spiralis* we find a parasite, by the diffusion throughout the body of its microscopic germs by way of the intestinal canal, capable of producing a disease of rapid progress and of frequently fatal result. At times it has appeared to exist as an endemic disease, but it is now well understood to be

caused by the introduction to the body of uncooked pork, which contains the germinal parasites.

In the case of vegetable parasites we deal with germinal elements even more minute, and involving an increased delicacy in research. Here we meet the same conditions which have continually been found to confront us in the study of the relationship of minute organisms or microbes to disease.

In the case of favus was the fungus called *Achorion Schönleinii* or in that of *Tinea tonsurans* was the fungus *Trichophyton* the cause of the disease, or was the parasite accidental and unrelated to its causation? Numerous experiments showed that inoculation with the parasites would produce these affections, while their destruction would cure it. That such a test was conclusive must be admitted on all hands. In the case of these fungi, spores, or germs, it was incontestably proven that they could be carried for considerable distance through the air. This was the key to the mystery of the transference of the disease from one person to another. Hence, there followed at once treatment based upon this newly acquired knowledge: the application of a parasiticide to the fungus at once cured the malady.

As bearing upon the truth of the germ theory of disease we have the knowledge of the cause of certain diseases of plants, some of which are of very great importance as affecting the food supply for man. The disease known as potato-rot, which appeared in this country more than forty years ago, and very early reduced by from one half to one fourth the crop of potatoes produced in the country, but which has since been greatly checked in its ravages, was found to be due to the presence upon the potato plant of a microscopic germ, which fructifies upon the leaves and drops off in spores, to be washed by the rain through the soil to the tuber beneath, where it accomplishes its destructive mission. It has been asserted that the filaments of this fungus may penetrate the cellular tissue of a leaf in twelve hours, produce fruit in eighteen hours more, and in twenty-four hours be ready to germinate if detached and placed in water.

To the brilliant researches of Pasteur do we owe very much of the knowledge acquired in regard to the influence of microscopic organisms upon the fluids and solids with which they may be

brought into relation. A proper discussion of this subject of necessity leads to a consideration of his work in this field. With a naturally bright and active mind he came to the study of fermentation, after a vigorous and long-continued training in the solution of various scientific problems by careful experimentation. Many observers had worked in this field before him. Many valuable facts had been made known, but their relations to each other were not apprehended, nor was their scientific value appreciated. The discovery of the yeast plant already dated back many years; its true significance, however, had not been understood, and the value of the discovery had been too lightly estimated. Trodden fields are often fertile to the fresh investigator. The gold-dust gathered from the floors of the mint goes far towards paying its running expenses. Let us not think that progress in any branch of science is confined to new fields alone. Oftentimes previous and distinguished laborers have but turned the soil for future investigators. As Professor Tyndall says in regard to this discovery by Pasteur: "One hardly knows which to admire most, the intuitive vision which discovers in advance the new issues to which existing data point, or the skill in device, the adaptation of means to ends, whereby the intuition is brought to the test and ordeal of experiment. In the investigation of microscopic organisms, 'the infinitely little,' as Pouchet loved to call them, and their doings in our world, M. Pasteur has found his true vocation. In this broad field it has been his good fortune to alight upon a crowd of connected problems of the highest public and scientific interest, ripe for solution, and requiring for their successful treatment the precise culture and capacities which he has brought to bear upon them."

The record of his work as given in a thin volume by his son-in-law (and from which I have freely drawn) reads like a romance, so rapid and successful are his various triumphs in the solution of problems of great interest to his country as well as to the world; triumphs which have seemingly opened the way to the possibility of certain knowledge in pathology, and ultimately (we may hope) in therapeutics.

With the instinct of a scientific genius, Pasteur quickly proved that all fermentation is due to the action of minute organisms in

the fermentable material. The organism for lactic-acid fermentation is of one kind; those of butyric, acetic, etc., of different and distinct kinds. He proved that the organisms *themselves* were the ferments; that some could exist without free oxygen, while others required it.

The most important facts developed by these investigations were that ferments are living things, and that when a small number of these exceedingly minute organisms are introduced into fermentable liquid under proper conditions of temperature, etc., they multiply with most astonishing rapidity until all the material suitable for their growth has been changed in its chemical composition.

In close connection with Pasteur's establishment of the true nature of the processes of fermentation, which he succeeded in doing to the full satisfaction of his opponents, Liebig included, came the discovery of the relation of the presence of microbes to the processes of putrefaction.

In this investigation he found the identical microbes of the butyric fermentation in putrescible material when exposed to the possible entrance of germs from the atmosphere. His writings on this subject came into the hands of Lister, and stimulated him to investigate the means of arresting the entrance of such microbes when their presence would be deleterious to the human organism.

Pasteur had now established the dependence of the processes of fermentation and putrefaction upon the action of microbes. He had also shown that they existed in almost infinite numbers, and were capable of extremely rapid reproduction under favorable conditions.

"Having advanced thus far," says Tyndall, "it was impossible for an inquirer like Pasteur to evade the question, whence came these minute organisms which are demonstrably capable of producing effects on which vast industries are built and on which whole populations depend for occupation and sustenance? He thus found himself face to face with the questions of spontaneous generation to which the researches of Pouchet had just given fresh interest. . . . One by one the statements and experiments of Pouchet were explained or overthrown, and the doc-

trine of spontaneous generation remained discredited until it was revived with ardor, ability, and for a time only with success, by Dr. Bastian," to be at length finally and completely overthrown.

Next in order of the studies of Pasteur was the investigation of the silk-worm disease, called *pébrine*, which was producing great pecuniary loss, and even threatened the complete extinction of the silk industry in France. He soon found that a minute organism was invariably present in the bodies of the worms at whatever stage of their life they perished. After two or three years of patient work he was able to show the ways by which these parasites found lodgment in the living tissues, and how they were transmitted from one generation of worms to its successor, and, further, he also devised means for the extermination of the disease by the destruction of the parasites.

"Up to this point the study of parasitic diseases," says Dalton, "had been increasing in development and becoming of greater importance in general pathology. From being confined, as at first, to a few cases of local disorder, it had now come to embrace a great variety of morbid affections. It has demonstrated the close connection existing between animal and vegetable pathology, and it has shown that the severe and even fatal constitutional disorders of the animal frame may result from the internal growth of microscopic parasites of a vegetable nature. And these facts have been ascertained by patient microscopic investigation and laborious experiment on the development of eggs and spores and the phenomena of infection and contagion. It cannot be denied that the results, so far, are genuine."

In February, 1876, Tyndall wrote to Pasteur thus: "For the first time in the history of science, we are able to entertain the sure and certain hope that in relation to epidemic diseases medicine will soon be delivered from empiricism and placed upon a real scientific basis. When this great day shall come, humanity will recognize that it is to you the greatest part of its gratitude is due."

Pasteur next undertook the study of viruses. He sought first to arrive at the causes of the terrible malady called *charbon*, or splenic fever, which was under investigation at the hands of Koch, who succeeded in following up the life-history of *Bacillus anthracis*, which is the unquestioned contagium of that disease.

On April 30, 1877, Pasteur furnished a note to the French Academy of Sciences, in which he demonstrated in an unanswerable manner that this bacterium (originally discovered by Davaine) was the only causative agent in the splenic fever. Here he first recognized the important distinction existing between an organism and its *spores* as regards viability. Koch also showed the great importance of this distinction, and, furthermore, he noticed that while mice and guinea-pigs were invariably killed by the parasites, birds were unaffected by them. Pasteur explained the reasons for this difference between the action in mice and in birds, and in so doing brought out the wonderful quality of his genius in his ability to trace the true relationship of facts. He had observed that at a temperature of 111° F. this bacillus ceased reproduction. The temperature of the blood of birds is about 107° F., so near the limit for reproduction that he argued that this, with the increased difficulty of obtaining oxygen from the living tissue over that of obtaining it from an infusion, accounted for the immunity of birds from the influence of this parasite. By placing the feet of the bird in water at 77° F., and thereby lowering its temperature to about 100° F., he was able, however, by inoculation, to induce a fatal result in twenty-four hours. The interesting experiment was worth reversing: "Is it not also possible to restore to health a fowl so inoculated by warming it up again? A hen was inoculated after being subjected to the cold-water treatment, and when it became evident that the fever was at its height it was taken out of the water, wrapped carefully in cotton-wool, and placed in an oven at a temperature of 95° F. Little by little its strength returned; it shook itself, settled itself again, and in a few hours was fully restored to health. The microbe had disappeared. Hens killed after having been thus saved no longer showed the slightest trace of splenic organisms."

In pursuing these investigations he introduced the method of cultivating bacteria in what he named culture-fluids, which has resulted in advancing the study of bacteriology very greatly. After freeing the parasite from any extraneous substance which might be associated with it when taken from the diseased body, by twenty or more successive cultivations in previously sterilized fluids, he introduced a very small quantity of this last culture into

the body of a healthy sheep, with results fatal in two or three days with all the symptoms of natural splenic fever. This system of culture is now adopted by all investigators in bacteria propagation.

Time does not permit me to speak of the later work of Pasteur in the matter of attenuations of virus — that is, on modifications of the microbes by changes in cultivation, so that while their protective influence against a repeated development in the vital fluids of the same individual is secured, there is a lessened severity and therefore a lessened danger from the attack, hence giving an enlarged meaning to the word vaccination, and possibly extending its benefits far beyond anything before imagined.

These are subjects of the highest importance, and will fittingly crown the great work of this great man.

The money value of his discoveries in this direction in protecting animals against splenic fever has been really incalculable.

If time shall fully demonstrate the complete truth of his claims in regard to hydrophobia, he will have done much to relieve this disease of its terrors. We can hardly place a limit upon our reasonable hope of good from the future development of this principle in its application to other diseases. Nor will I task your patience by entering into the details of the work of Koch and many other laborers in this field. I can only say that these labors have been carried on with the utmost diligence, patience, and success.

Many bacteria — I use the word as including the three general classes of microbes capable of causing disease: micrococci, bacilli, and spirilla — have been discovered and their life-history carefully investigated. They are studied with reference to their physical appearance, their peculiarities of growth under varying conditions, their physiological action on animals, and their relation to fermentative fluids when placed in suitable conditions. It is reasonably certain that the micrococcus of gonorrhea has been found; in pus several micrococci have been identified, one of which closely resembles that of erysipelas, a disease whose parasitic origin is now clearly settled. We have also the *Bacillus anthracis,* and undoubtedly that of typhoid fever. The bacillus of pneumonia, described first by Friedlander, is still under obser-

vation; more facts may be required to establish its positive agency in the causation of this disease. The bacilli of glanders, of syphilis, and of leprosy are also probably known. The causative agency of the bacillus of tuberculosis, as discovered by Koch, may well be considered established, as may that of cholera, and perhaps that of yellow fever.

In regard to the exanthemata, there can hardly be a doubt that for each there exists a microbe as the agent of causation, although its complete identification in any case is probably lacking. Without prolonging this enumeration I can say that there seem to be sound reasons for the belief that our knowledge in this direction will be greatly increased in the near future. In some cases it may be true that much larger claims have been made than are justified by the facts. It is possible that in some instances the bacteria may be present because the conditions under which they are found are favorable to their development, and that their presence should be reckoned as a consequence rather than as a cause of disease. By some who do not as yet accept the germ theory of disease, the position is taken that these microbes simply add to the dangers of the malady, and do not at all act as original etiological factors. This is a claim made especially in regard to the coccus of pneumonia.

The knowledge of the relationship of putrefaction to the presence of micro-organisms has led to very surprising results, especially in surgery. Many of the dangers of surgical operations can now be avoided by strict observance of means which shall prevent the admission of the putrefaction bacilli to the wounded tissue, or destroy them if they have already found entrance. This insures a great saving of vitality to the patient, and gives much more valuable results in a shorter time. The dangers of abdominal surgery have been so greatly reduced that operations which were formerly considered unjustifiable are daily performed, and their non-performance would now be regarded as the unjustifiable procedure. Laparotomy for diagnostic purposes is performed quite often, not only with safety to the patient, but also with the greatest benefit as affording a certainty in treatment. To relieve intussusception of the intestines, or for gunshot wounds of the abdomen, as well as for [illegible]y obstructions by calculus, lapa-

rotomy has been used within the last five years with results fully proving its claim to a place in legitimate surgery. Resection of the stomach and duodenum for ulcer, and of the intestines for injury, have been undertaken with some success. Indeed, the list of new operations in abdominal surgery is quite remarkable for its length. In obstetrics the use of the so-called antiseptic precautions has shown surprisingly favorable results, especially in those situations such as the lying-in wards of hospitals in large cities, where heretofore the death rate has been so high as almost to cause these institutions to be considered of questionable value, and in those conditions occurring anywhere now recognized as depending upon putrefaction or septic processes. Until quite recently there has been much doubt whether many of the good results claimed for the antiseptic method were not really due to the greater care in the treatment of the patients which it required, and to the increased cleanliness included in the process. A more thorough study of the various agents claimed as antiseptics shows that some of the former failures in the antiseptic treatment were rather due to agents used than to the theory on which they were employed, as they were experimentally found not to be true germicides.

The relationship of conditions of filth to these organisms is an important study. Certain diseases, such as typhoid fever and diphtheria, are quite generally regarded among us as due almost or quite solely to conditions of uncleanliness; that is, if we consider the replies made to the questions of the board of health of our State as indicative of the general opinion. There is no doubt that, particularly as respects the bacilli of these diseases, states of filth are favorable to their development outside the human body. Very likely, also, so-called unsanitary conditions tend to produce in the human body a favorable soil for the reproduction of these organisms, but their presence is certainly one of the essential factors in the causation of the disease. Eleven years ago the then vice-president of our Society discoursed to us upon the value of cleanliness in the surroundings of the well if they would remain well, and of the sick if they would become well. To-day we can add to his wise words those which shall equally emphasize the necessity of destroying or excluding from wounds those germs

whose development is greatly favored by filth, but whose presence may be shown in the cleanest surroundings. Cleanliness is great, but asepsis or antisepsis *with cleanliness* is greater. Increasing knowledge of these organisms is continually extending the field of preventive medicine, and is thus leading to a more intelligent use of the agencies which it employs.

The fact that some of these microbes are benign in their influence, while others are always malign, deserves mention. Indeed, the presence of the former in the fluids of the body in which the latter are doing their work may possibly prove to be a very certain means of destroying the harmful parasites. This subject of cell antagonisms, so well treated by the president of the American Medical Association at Chicago in the present month, is one that furnishes much food for thought, and may aid us in comprehending the various parts of some morbid processes, and may also afford hints as to proper treatment.

The question arises whether the methods of treatment by therapeutic agencies have as yet advanced to meet the requirements of enlarged views as respects the pathology of these diseases. We feel sure that they have not, but the progress will come sooner or later. The eager avidity with which any new plan of treatment professedly based on these more recent views in pathology is seized upon by the profession is evidenced by the great demand for and extensive use of the apparatus and medicaments required in the employment of gaseous enemeta in cases of consumption, which almost amounts to a craze. While it is best to have minds ready to be convinced on sufficient evidence, it is well not to be carried too far by the statements of early and enthusiastic explorers in these fields. Let us prove all things, and hold fast to that which is true. The time has gone when we can content ourselves to grope in the darkness of the by-ways of knowledge, or to use means for the relief of our patients furnished by those whose knowledge was derived from delving in the occult sciences. We are able to come forth into the electric sunborn light of developing science, deriving our healing agencies from any source capable of affording such agents as are approved by experience and sound reason. We may truly hope that either we or those who shall soon follow us may completely emerge from the dim region of theory into that of the full sunlight of scientific certainty.

OBSTETRICS.

THIRTY YEARS' EXPERIENCE IN A COUNTRY PRACTICE.

BY WILLIAM CHILDS, M. D., NEW HAMPTON.

When mariners meet in mid-ocean they joyfully exchange records, compare charts, communicate discoveries, and recalculate localities, times, and distances. So to-day, after a thirty years' voyage on an obstetrical sea, I do gladly exchange with you, old fellows and young fellows, our obstetrical experience. I cannot communicate new facts nor methods. If I but confirm existing ones, if I but point out shoals already mapped upon which I have stranded, it may benefit some youthful, bewildered obstetrician.

This paper is not a classic, nor a reproduction, nor a historical account of the science and art. It is an account of the experience of me, your humble servant.

The obstetrical history of our State presents names never excelled. The list would fill pages. They have passed, leaving others more scientific, but none more practical, to relieve woman in her hour of supreme anxiety and peril. And when I contemplate their past achievements and the future possibilities, I most sincerely and emphatically deprecate this attempt to present my little experience, a bubble on an ocean, and a presumption. But the task has been assigned me, and I will perform it with alacrity and joy, though its execution may be weak and the result of little value.

My first case progressed rapidly and ended kindly. My digital examination was a humbug. I could not distinguish between anterior and posterior, right and left, superior and inferior, axes and planes, greater and lesser pelvis, sacrum and coccyx, fœtal head and buttock, anus and mouth, leg and arm, hand and foot, perinæum and pudendum, central curved line of excavation and bis-ischiatic diameter, nor could I comprehend the "beautiful mechanism which nature has instituted for the purpose of accomplishing the expulsion of the child through the maternal organs." My finger conveyed no more intelligence to my brain than had it been in a Scotch haggis or an Indian pudding. I retreated from that vagina beaten and crest-fallen. I invoked all the shades of the great obstetricians, assured the patient that she was "all right," retreated to a chair with a faint heart but a bold face. I said nothing, for the very good reason that I had nothing to say. My shirt was saturated with perspiration, my throat choked with grief, my limbs trembled with anxiety. I wished I had never enlisted in so blind a business. Perfect silence was in that room for thirty minutes. Those minutes were hours to me. My eyes were fixed on the floor, — not a word, not a move came to relieve that painful embarrassment, — when "Wow" and a "Yow" came from the patient. Then, "Come quick, doctor! Oh, doctor, help me! Oh, I shall die! Help me, dear doctor, quick!" In the coolest and most professional manner possible I said, "Yes, yes"; and before I could find my trembling way beneath the clothing, there came a fearful yell, a swash of waters, and with one grand effort the babe was born. I finally got the sheets off the babe's face and the face out of the waters. It yelled awfully. The women all in one voice asked if it was all right, and if it was a boy or a girl. I assured them it was. My blood was now up. I demanded a string, scissors, water, oil, and rags, with a professional air and authority. I tied and severed the cord, ordered a sheet, delivered my prize to the nurse with such professional dignity as did really impress the mother and assembled women. They looked at me with an expression of gratitude and confidence that has inspired me from then until now. "Oh, thank you, good doctor. You won't leave me, will you?" I declared I would never leave her. I assured her that

everything should be done for her that medical skill could do. Now it suddenly occurred to me that there was more to be done. The placenta was still retained. After a half-hour's fumbling about the vagina, the placenta was removed and my professional dignity was restored. The mother thanked me for being so good and skillful. Asked if I thought she would live; assured her husband that she would now be dead, only for that good doctor. The babe was dressed, cooed over, bounced, and criticised, and mother and babe were covered in bed. Then with trunk in hand I bade the mother good-bye, stood on the door-step, facing the door, and received my fee, $3.00, from the father; when, with a bounce, the mother's mother, crowding aside the father, looked me sharp in the eye and demanded if I were married. I said no, but that I knew as much as if I were. Whew! what a face; fury fairly glared from every feature. She did not speak, but she jerked the door to with such a slam as makes my nose tingle to this day. I never could understand why the old lady acted that way. Thus ended my first case. But still all the expecting mothers (to be) declared that they would not have me. I was chagrined, discouraged, crest-fallen — when affairs suddenly changed. In a certain instance hope was about to end in glad fruition, when the family physician was summoned. He was absent. Matters pressed, were soon urgent. I was driving that I might not witness my professional disgrace. I was a mile away, when the husband came yelling after me, saying his wife would die, and that my professional services were in urgent demand, and that I must not spare horseflesh. So we wheeled about; he applied the lash, I put on the switch; he in a rattling old farm wagon, I in a springless gig. Away we went down the hill, round the corner, past the watering-trough, across the bridge, around the post-office, down the street to the front door. The doors opened, the windows went up — the dogs yelped all along; the front door of the afflicted mansion opened wide, an excited woman yelled, spun around, called for me to come quickly, tried to pull off my hat — I thought she would pull off my head. I saw outside the family doctor just arrived. I got away from the excited woman, made a dash for the next room. The babe was head and shoulders in the world; I jerked him out, without waiting

for a regulation pain, tied and severed the cord, and was the hero of the hour; received the congratulations of the women, a fee from the husband, and the gratitude of the mother. The old doctor never quite forgave me.

My next case was that of a woman weighing one hundred pounds, who was finally delivered of a child weighing eleven pounds. Other physicians had been in attendance, but had left on important business. The woman had been in labor three days, and was completely exhausted. Her lips were purple and she was moaning to be delivered. Her husband was an imbecile and the nurse was drunk. Not a friend, not a neighbor was present. A tallow candle endeavored to afford light, a few soiled rags and a bag of straw were the bed. With much trembling I applied the forceps, delivered the dead child, and did not harm the mother. She was unconscious, seemed almost dead. After hours she rallied, remembered her peril, and recognized her relief. I received no fee, but the gratitude of the woman and the positive consciousness that I had saved one life were an excellent fee, though it needs many such to buy a barrel of flour.

On account of the first two cases I became renowned in my little precinct. In the third the only credit I ever received was that "It seemed very funny that he did not save that child." In the first two I was not of the least possible benefit. In the third the woman would have certainly died only for the forceps. I have given the exact facts of my first three cases. They present a fair example of an obstetrician's life and practice. The inferences and lessons to be deduced are obvious.

The remainder of this paper will be mainly observations, impressions, and conclusions, without very elaborate presentation of detailed cases.

ARTIFICIAL RUPTURE OF MEMBRANES.

Had six cases in which artificial rupture was performed. Never rupture until soft parts are well dilated. Had two cases where the abundance of the waters prevented the head "engaging" and descending. On rupture the labor progressed rapidly and kindly. I have never seen a case where membranes ruptured early that did not seem to progress slowly and to be accompanied with dryness

of vagina and general nervousness of patient. I certainly believe that the bag of waters in advance of the presenting part is a natural and wholesome provision ; but, like all the natural processes, may become abnormal and need artificial interference.

PRESENTATIONS.

Have had all the vertex, one face, several breech, knee, feet presentations. Head passing with face to the sacral concavity always rendered labor more rapid ; face to arch of pubes causes prolonged labor and more fatality to child. Face presentation severe and fatal to child. Of the breech, knee, feet presentations, the first three were fatal from strangulation of the cord by pressure between head and pelvis. Since those three, all these presentations have passed kindly. Never have had any other presentations. Never have had an arm, side, or abdominal presentation, or prolapsion of the cord.

BREECH PRESENTATIONS.

More children are still-born in breech presentations than in the vertex. Yet the contrary should be true. The cause of this increased fatality is caused by the delay usually occurring after delivery of all of child but the head. This causes pressure upon the cord, and arrests fœtal circulation and produces fœtal death. The delay in the labor is because the head has fallen upon the opening of the canal through which it must pass, with a diameter of four and one half inches, with its long occiput-chin diameter of five and one fourth inches. Nothing but extreme violence can force this five and one fourth diameter through this four and one half diameter ; and this extreme violence will and does pull away the body, leaving the head. We are taught to avoid this by pushing up one extreme of this long diameter, and allowing it to pass endwise through the canal. Thus we have a diameter three and one half passing through one of four and a half, and all is well thus far. Still much delay is often thus caused, and consequently death.

Then, again, we are instructed to carry the limbs and body forward parallel with the limbs of the mother ; but this will often fail of immediate delivery with like results. Allow me to give

the following directions. Though not original with me, nevertheless it is an excellent, a perfectly successful rule for the delivery of head after body is delivered, in breech presentations: Have patient on left side, near edge of bed, with back to operator. Have thighs of patient flexed upon body moderately and with firm bedding beneath. Have right leg supported by knee as far as may be above its mate. Now immediately on escape of body, shoulders, and arms, grasping feet with right hand, carry child around between legs upon and parallel to abdomen of mother, making gentle but increasing traction. The head will be delivered instantly, generally, always under the conditions under consideration. There should not be an instant's delay between the delivery of body and the maneuver; and the movement should be performed with boldness and considerable traction. Allow me to be urgent upon this point. If a physician have ten cases of breech presentation without loss of one child, then I am sure that he has followed this rule. If he has lost one child out of the ten, I am as positive that he has not followed this rule carefully and intelligently.

Why does this plan succeed? And why does the opposite fail?

First, why does the opposite fail? Now, then, when the head descends upon the lower outlet, we have practically a slit in a firm, resisting texture. This opening has a diameter of four and one half inches. To be drawn through this we have the head with an ovoid form, the short diameter being three and one half inches, the long diameter being five and one fourth inches. Now the whole matter of delivering the head rests upon bringing this short diameter into the canal of four and one half inches. Now the head is a cylindroid, with its long diameter across the outlet. To its middle is attached a swivel, the neck uniting thereto the body. Now by traction, as directed, on the child's feet, we draw the head along in a line nearly parallel with its long axis, and thus draw the one end of the cylindroid over and above the pubic bone, allowing the other end to drop into and through the slit, and the whole head, by its lesser diameter, escapes with the utmost facility, as would a well-lubricated egg.

Judging from my own experience, this situation is not sufficiently comprehended, and the manipulation is not performed with sufficient promptness and positiveness.

Remark the ovoid form of the fœtus and of all its successfully presenting parts; and delivery is facilitated by having the curvatures of the fœtus correspond to the curvatures of the canal. These principles are practically recognized everywhere, in all the reproductive efforts of nature, both initial or terminal.

FORCEPS OBSTETRICAL.

Of all the remedial agents, no one has arrested more acute suffering or saved more years to life than the obstetrical forceps, in proportion to the times employed, provided it has been in the hands of intelligent, conscientious men; and like every good and active remedy, none is capable of more disastrous results if improperly employed. This statement is not original, but it is so true and so important that I unhesitatingly repeat it. I have employed forceps for one in every sixty-six cases, twice for same mother; children all alive but one; mothers all alive and uninjured. In three other cases forceps would have saved the children, but at the risk of injury to the mothers. The forceps is an instrument first for the mother, second for the child. It is the remedy for exhausted-labor cases, and for those that could not be completed by natural or manual efforts. It never should be employed to abridge the average labor. The physician cultivating the opposite sentiment is a quack, and, practising it, is a knave. To subject a mother to the risk of laceration, with all its painful and disgusting consequences, that the mother may be relieved of a few hours of pain, that the physician may abridge an irksome delay, or win him coveted applause and practice, exhibits neither heart, sense, nor professional skill. The time, limit, and occasion for the use of forceps cannot always be readily determined, but there is such a time, limit, and occasion, and they should be as diligently, carefully, and conscientiously sought as would be those for the use of morphia, ether, chloroform, or powerful drug or operation, which would be detrimental if improperly used. There is a tendency to abuse the use of the forceps, but the evil will carry its own remedy. One laceration will restrain people and physicians in a large precinct. I understand that certain physicians advertise by information diligently and adroitly communicated to nurses and busybodies, that they can and will ab-

breviate labor and abridge pain by use of forceps in every case continuing beyond a very brief period. But every physician before me knows that such a promise is not only absurd, but an attempt to fulfill it would be criminal. There are cases where the os would not so dilate for hours as to allow by any possibility of the application of forceps. Then, again, after this dilatation, many women are so closely and compactly constructed that it is only by hours of labor, for which nature is usually sufficient, that the parts have become so relaxed as to render it safe to introduce forceps, much less to deliver with same. These are the cases that have such wretched, criminal results.

HEMORRHAGE.

No obstetrical condition demands more judgment, more persistent attention, or more prompt action. An hour renewing our knowledge once each year is not time lost. When the sluiceways of the impregnated uterus are once opened, the life-blood flows rapidly. This condition is the terror and opprobrium of the obstetrician, unless he is fully prepared to administer all the known remedial agents and procedures, and is a person of resources.

In abortion our best remedies are ergot, tampon, and removal of fœtus and placenta as soon as may be consistent with safety to the mother. The tampon and patient waiting are often positive necessities. No woman is safe after flooding has begun until placenta is detached and removed. The tampon is best made of a continuous strip of soft, smooth cotton, well oiled — enough to pack the vagina full. Being in one strip it is more easily removed.

HEMORRHAGE AFTER DELIVERY.

This is possible in every case of labor. It occurs in but very few. The possibility renders constant vigilance necessary. The hemorrhage may be apparent or concealed. I came near losing a patient from concealed hemorrhage. I sat at bedside after delivery of placenta and was giving last directions before leaving. Suddenly the mother became pale and senseless. I at once introduced left hand into uterus and applied right hand to abdo-

men. The distended uterus was filled with blood. Pressure upon the uterus inside and out soon restored contraction and arrest of hemorrhage. From then until now I never leave the bed for at least one hour, nor allow anything to disturb the quiet of mind and body of the mother. During all this hour, or often more, I press upon the uterus with the right hand, retaining the left hand with which to make occasional explorations to see the amount of hemorrhage.

Of course I use the approved remedies, as ergot, cold water poured upon the abdomen. I have more than once injected cold water into the uterus without bad and always with good results.

No obstetrician is justified in leaving the bedside of woman in childbed until certainly one hour, sometimes two, has passed since the delivery. In nine cases it may not be necessary, but in the tenth it surely will be; and not knowing when the tenth may be, the constant attention is necessary. If anything can render one obstetrician more successful than another, it is constant attention to the case, thereby attaining the earliest possible knowledge of every change, good or bad, in the progress. Of course this should be within the limits of common sense and decency. Some women are annoyed by too much attention, as they term it, but generally such attention as may be necessary to a full understanding of the case will be duly appreciated and responded to by an increased confidence.

Hemorrhage before delivery is perilous; and its proper and successful treatment indicates intelligence, decision, courage, and real knowledge of the obstetrical art. The proper procedure is agreed upon — that is, separation of placenta as soon as may be, and delivery by turning. But to perform this operation at proper time requires careful judgment and decision. Delay is death. The condition having been recognized, the patient must not be neglected for a moment. No obstetrician can be held guiltless who leaves a flooding woman, for any time, until the escape is arrested. I have had personal knowledge of two placenta prævia cases. One was successfully treated by the attending physician. The other died from want of full appreciation of the situation rather than from want of skill to manage.

PUERPERAL CONVULSIONS.

How shall we treat puerperal convulsions? Well, I certainly have seen four cases of this fearful nervous irregularity. Each of the four was different from all the others, and each demanded and received a different treatment.

My first was of a young, full-blooded woman. A convulsion ushered in the labor; they occurred about every half-hour. Two physicians were called; they advised bleeding — bleeding. She was bled. The convulsions continued until after delivery. After a week she recovered mind and health, and is now in a healthy middle age.

The next was a consumptive. She was pale; labor was in charge of an irregular practitioner. I was called in haste; found patient purple, apparently dead; head pressing upon perinæum. At once delivered with forceps; mother and child lived; no convulsion after delivery; recovered consciousness after three days.

The third was a woman of exceedingly nervous temperament. After a time of quiet labor, and before the os was dilated, a convulsion occurred, and a second and third followed. Thirty grains each of chloral hydrate and bromide of potash in solution were injected into the rectum. After this but one convulsion. Mother lived — child was dead before labor began.

Another case with apoplectic symptoms and convulsions was at once greatly relieved by an active cathartic of cream tartar and croton-oil. Mother and child both lived.

Now, then, for treatment: Bleeding in plethoric cases; chloral and bromide of potash in nervous cases; cathartic in apoplectic cases; morphia in spinal irritation from anæmia, and in cases where we find an unusual sensitiveness to pain, timidity, and a condition best described by the term "tense." In cases of rigid os, morphia is far better than belladonna or tartar emetic, as it is also the best remedy in certain forms of convulsions.

In one case the woman undoubtedly had slight apoplexy before labor began; delivered with forceps; child had convulsions and died after a few days; just nine days after delivery, mother had apoplexy with paralysis of right arm and leg with loss of speech. This continued for about one year, when a second child was born. The second labor was rapid and ended

kindly. Mother and child lived. After one year the mother has slight improvement respecting the paralysis, and the child is in perfect condition. But few similar cases are reported.

Thus, Fellows, I have given you my little experience, extending over thirty years of time. I have only had hundreds of cases where many of you have had thousands. Nevertheless, from these few hundreds I have been able to arrive at some positive obstetrical conclusions.

1. Never attempt this practice until the best training possible can be attained. All the general principles should become perfectly familiar, all practical knowledge in hospitals, etc., should be gained that may be possible before attempting general practice.

2. Having this, do not be a coward. Be sure you are right, then go ahead. Do your best every time. Work up to your knowledge every time. Be vigilant, alert, and stand square with your case. Be honest. Deception will never do in this business. Never attempt quackery. Quackery never has nor never will flourish in the lying-in room. Here the best man is always in demand.

And, finally, keep yourself clean both physically and morally, and I will assure you that a kind Providence will grant you as much satisfaction in your life's work as will come from any other profession or occupation. God willing, I will report to you at end of another thirty years, if your executive committee should again insist upon my writing a paper upon obstetrics.

DISCUSSION.

Dr. J. W. Parsons, of Portsmouth, said: I suppose I labor under the disadvantage which all labor under who have been appointed to open these discussions, from the fact that the papers have not been brought before us in any other way except as we have heard them read this morning; and of course it would be impossible to remember every point upon which at the moment some thought might have been suggested. And I am not opposed to that resolution which was introduced and I believe passed this morning, and I hope it will be acted upon in the

meetings hereafter, so that there will be no trouble about the disputants knowing upon what they are to speak.

The paper was certainly a very felicitous one in many respects, and afforded us a good deal of amusement as well as some instruction; and the doctor's first, second, and third cases were certainly interesting, and, as he related it, particularly the first one. I do not think I had better relate to you my first experience, as the doctor seems to have covered the ground pretty thoroughly, particularly in regard to making out the presentation. I think that is a common remark among all physicians that in their first experience they have a great deal of trouble in diagnosticating the exact presentation and condition of the parts. And I will make a still further confession than the doctor did, and say that even to-day I am at times at a loss for a moment to find the exact condition of things. There seems to be confusion to my sense of touch when attempting to make the examination. I cannot boast of quite the same length of time in the business that the doctor does. He says thirty years; my own will cover only that of twenty years. In regard to the matter of presentations, I think that it is usually the case, that is so far as I can judge from the conversation I have had with other physicians, very few of us ever take the trouble to make out the exact presentation. I do not believe that one physician in fifty does; I mean in ordinary cases. If he has a troublesome case or delayed case he then unquestionably makes further attempts to distinguish the presentation; but I will say in my practice I never pay any attention whatever to the presentation except to know that I have got a foot or a head presentation. I have never had any special trouble by the delay. Of course this is a general statement, and would have to be modified under some circumstances.

I think the doctor's suggestion in regard to knee, feet, and breech presentations, etc., is very good, that of turning the child up over the abdomen of the mother. I certainly have found it a very excellent method, and a method which expedites delivery very much indeed, and I can confirm all that he said in favor of that method.

His next topic was the use of the forceps. I should take a little more liberty with the use of the forceps than the doctor rec-

ommends. I believe in applying them on all occasions where it is deemed proper. Perhaps that does not convey any information, nor express what I mean. Of course in all prolonged labor where the os is dilated and the head is partially presented, there is no question I believe in regard to the propriety of applying the forceps, and I am of the opinion that many times you can relieve and hasten labor by the application of the forceps, provided you have got the consent of the patient and friends. I do not believe there is any more danger of lacerating the perinæum by the use of the forceps than to proceed in the natural way. That of course implies the rational use of the forceps, not as I saw them used in the first case of forceps, which I will relate. I called in an elderly practitioner, who put the forceps on in the most brutal manner, and put his feet on the bedstead and pulled straight on the axis of the body; and such work I never saw before and have never seen since. And I said I would never call upon a man again to assist me in applying forceps, and I never have and never will. When I have been alone I have always succeeded in accomplishing my purpose. The application of the forceps in that manner is brutal and outrageous, and the man should be held for malpractice.

I have said heretofore that there never was a case of natural delivery in which there was not some laceration of the soft parts, and I had taken pains to make particular examination in regard to the matter, and I never found a case in which I did not discover some slight laceration. I have pursued that investigation a little further, and I will not say but that I have seen one or two cases in which I did not find any abrasion whatever; but in all my use of the forceps I have never yet seen so bad lacerations as I have seen from the natural expulsion of the head, and I believe that to-day I can deliver my women with less injury to the soft parts by the use of the forceps than I can to let them take the natural course.

The doctor in his paper says he would not use them to relieve women of pain. I would. I have a question presented me as follows: "Are forceps the instrument of the mother, the child, or the doctor?" I should say all three. As to the mother it is not necessary for me to go into any explanation. You all

know that it frequently saves life, and will save a great deal of suffering. That it saves the life of the child there can be no question in my opinion. That it saves the time of the doctor, that it saves wear and tear to the doctor, allows him to close up the case and finish it in a satisfactory manner, is also true ; but I would place the doctor last. I would place the mother first, of course, the child next, and the doctor last. I don't hesitate to confess that I have used the forceps for the purpose of expediting labor for my own convenience, and I have no doubt but that I shall do it again.

The doctor well says that hemorrhage is a terrible accident to happen in the case of midwifery, either antepartum or postpartum. I do not know of any occasion on which a man's courage is so thoroughly tested. I do not know of any occasion where my courage has been so thoroughly tested as in case of flooding after delivery. I never happened to have a fatal case from hemorrhage, except one badly complicated case, where the woman was frightened badly some time before, and when the child was delivered there came also with it a clot of blood about the size of the child, and the woman died in spite of all I could do.

I believe the doctor alluded to hemorrhages in abortion, in retained placenta, if I understood him correctly. There were many points that I did not understand as I should have done if I had had an opportunity to read his paper. That is a question connected with which there is a good deal of doubt, but my method is to let the placenta alone ; if the woman is flooding, to apply a tampon and let her alone. I do not believe it is necessary to perform immediate extraction of the placenta, except perhaps when the woman is very far advanced, but I mean in the ordinary cases of two or three months. I believe it is not necessary or proper, notwithstanding the opinions of men of more importance than myself. I would not introduce my fingers or placenta forceps, or anything of the kind. I have had patients from whom, so far as I knew, the placenta never came away. I recall to mind two at this time where it never came away — that is, I mean in mass. Of course it did come away in some form, or was absorbed.

The practice of giving ergot immediately after the birth of the

child I pursued for several years, but I have omitted it recently for the reason I thought that once or twice I got into trouble with the placenta on account of the extreme contractions brought on by the ergot. The uterus contracted so firmly I had difficulty in extracting the placenta. I do not know as that had anything to do with it, but I thought it might have.

Dr. L. G. Hill, of Dover: I do not propose to occupy but a moment's time, but I want to inquire whether or not in the use of the forceps they would make traction during or between the pains?

Some persons insist on one way and some on the other. My practice has been to use traction during the pains, and I suppose there are not the same objections here that some persons make to the use of the forceps. There are certain cases where they are very essential either for the mother or the child. I knew of a physician, now deceased, who was in the habit of using the forceps to save his own time, supposing, I have no doubt, that he was doing well for his patient.

One point should be regarded. I remember to have had trouble in one case where I was in consultation. The other physician said he would support the perinæum while I was using the forceps. I allowed that to go on and got mischief from it. That supporting the perinæum is a mistaken idea first and last. Let the parts accommodate themselves to the pressure coming upon them, and use the forceps very slowly and cautiously, and just make the curve at the proper time, and not pull directly straight forward with violence, but slowly, gently, carefully.

Dr. Roberts, of Wakefield, in cases of convulsion, depended not upon bleeding, although he admitted that was useful at some times, but he would give cicuta and bromide of potassium to relieve the convulsions.

I have seen in my own practice and in consultation more than fifty cases of convulsion. The first half of those cases were treated by bleeding, chloroform, and ether. More than one quarter of them died. The ether and chloroform were used freely and produced their full effects. I have never seen a case where, in the beginning of the convulsion, judging from the pulse, bleeding was indicated. I never have seen a case but

what was attended with albuminuria. The last half of these cases were treated with chloral, sometimes morphine. In order to get the full therapeutic value of chloral we must give it with some special regard to the strength of the patient. The mere idea of giving fifteen or twenty grains of chloral, leaving the case after that, is of no value whatever; and we must have some rule to guide us, and it is this: to give your chloral either by mouth, or rectum injection, or subcutaneous injection until you have controlled the cutaneous sensibility, and that is best shown by the resistance the patient offers. I make that the invariable rule, to control the hypersthesia or cutaneous excitability. One patient had seventy-seven convulsions before any chloral was used, and many of them ten, twelve, or fifteen, and every one has recovered. I gave one patient two drams of chloral by subcutaneous injection.

Regarding hemorrhage or the removal of the placenta in abortion, my rule is, in the first place, if there is evidence that the placenta is still attached to the uterus, — previous to the fourth month, — we should let it alone. I never have seen any difficulty result from it if it was let alone. Every fatal case I have ever seen has been in consequence of meddlesome work in trying to remove it. If there is bleeding, introduce a sponge, one or more, that will completely close the upper part of the vagina, and you need not give yourself any more trouble about it.

Dr. Stackpole, of Dover: I was present when Dr. Childs read his paper, and there were several questions I wanted to ask him, which he did not think necessary to state; and if he is here now I would like to ask him in regard to the perinæum which he was talking about when I came in. I never had any trouble in that direction, but I wanted to ask him, with his upwards of two hundred cases, how many cases he had where there was a ruptured perinæum. He did not state that. But in my cases — I do not know why — I had a good many more cases than Dr. Childs had, but I believe that with the proper course of practice there is very little danger of that condition; and one thing is, wait, do not hurry. I do not pretend to have any more skill in that direction than others, but I have had very little trouble, indeed, in that direction.

He referred to another thing, the use of instruments. I think

they are very useful. I think there are cases where it is very important that they should be used. It is a great blessing that we have such appliances to use under circumstances where it is demanded. And in skillful hands, in hands that understand the use and have the skill, I believe there is very little danger and a good deal of saving made. But in unskillful hands, I believe, as he said in his paper, that they are very dangerous. They are very bad things to use unless you understand fully how to use them and just the time to use them as judgment will dictate.

And he referred in his paper to placenta prævia. I did have trouble in the early part of my practice in those cases. I had very much trouble and would usually lacerate the child, but latterly I think I can avoid it; I think I get along now with those cases a great deal better and with comparatively little injury to the child or mother. In considering the matter I always look upon it as of the highest importance to save both if I can; but if I can save but one, save the mother. I want to ask Dr. Childs, in this case of placenta prævia, what was the result in regard to the child? And if he were here I would like to have him state what the result would be, and in regard to the different presentations. You all know as well as I do when you have a natural presentation, generally speaking. There is not much trouble, only wait and watch. If you go to hurrying up, if you go to using rash means, or if you take an imprudent course, you may get into trouble.

In regard to the convulsions he speaks of. Of course I dread to have them. They are nothing uncommon. I have had a good many cases of that kind. I would use very much the same means that Dr. Childs did to control them. I have used chloral, I have given some in large doses, and bromide of potassium sometimes if I had it with me; and I usually succeed in controlling them. I do not know of any case I have lost in convulsions; and I think I have looked at the matter in the light of reason and common sense. Knowing our business, I think as a general thing we may control them. Perhaps there are cases where it would be impossible.

In regard to bleeding, I act according to my best judgment. If it is necessary to bleed I bleed; if it is necessary to give

medicine I give medicine, whatever it is; although I give comparatively little medicine to what I did in my early practice.

In regard to flooding, I have had very severe cases of that. I can control them I think now; and I never lost a patient under those circumstances. I use a tampon. I use one perhaps a very little different from the one he referred to in some respects. I use a very strong solution of alum on my sponge, or whatever material I use. If I had it at hand I passed a piece of alum into the cervix as large as my watch-case, and push it in, and then fill the vagina with tampon, and then have this wet in alum; and then, when the pains come to expel the child, keep it packed so that the cord will not be compressed too much; and when the pains come I hold back, and do not allow the child to come until the parts become dilated, and then it all comes away together without any trouble.

We have to use our best judgment; we have to use skill if we have any. When it is necessary to use instruments I use instruments; when it is necessary to bleed I bleed. I had a very severe case, a woman of plethoric habit, full of blood. Before I arrived — and it was some few miles from my house — she was in a very severe convulsion. I used chloroform and bled her. And I called in the late Dr. Martin, ex-governor of the State, in consultation. We bled the patient, and he said we would bleed her to death. It was some two or three days before she came to her senses, but when she did she seemed to come about naturally. Bleeding was what saved her life. She never would have recovered if we had not relieved the system of this superabundance of blood. I have no prejudice either for or against it, any more than I have against any medicine. I have no prejudice against calomel or against opium. If I think it is necessary to do it I do it, and I generally get along with my patients very comfortably and very well; and especially in those cases of midwifery that have been referred to in this paper I have generally got along with them comfortably well. I have used my instruments a good many times, but I think I have used them enough so I know how to use them. Perhaps others may use them with better skill and better judgment than I do. But as long as I come out and save both mother and child I have no hesitancy in

thinking I have done what was necessary in the case, and, therefore, feel happy in the result, very indeed, as we all do. When we have got a very sick patient we feel happy — rather, we feel well and thankful that we have got through with that case well. I give comparatively little medicine to what I once did. Nature is the great cure. What we want to do in all cases, I think, is to watch carefully nature's invitations, and to follow them out as near as we can without directing too much.

Dr. Smith: I believe in the large cities they use the forceps more than we do in the country. I should be glad to hear from Dr. Douglas, who represents the state association of New York.

Dr. Douglas: I am rather glad of an opportunity to say that I think that perhaps we do use the forceps certainly more than was indicated by the writer of the paper. In fact, I was rather surprised that they were not used more frequently. I believe that very much can be done, not necessarily with instruments, but by gently and firmly helping nature to dilate the parts, and at the proper time when instruments can properly be used with safety and can help the work, I think they should be used in every case. And my impression is that they are used more and more. And those who might relate their experience in regard to the use of the forceps are inclined perhaps to use them more than I ought to say. But some would say that in one half of the cases they use instruments. I believe in my practice I have used them in one third of my cases, and especially in the last year. I never have known any disastrous effects that would not have resulted, I believe, without them.

Dr. —— ——: In regard to the use of the forceps, whether we should be limited to cases of necessity or whether we should use them whenever it is safe to use them. If it is admitted that using them saves the patient suffering, of course it is a benefit. The question is whether they should be limited to cases of necessity, where the safety of mother and child demands it, or whether we may use them whenever it is safe.

Dr. Gross, of Milton: I wish to say just one word, not to take up your time, in regard to the method of administering medicines in convulsions. My experience has been that the stomach in convulsions is not an absorbing organ. No doubt the gentle-

men present, all of them will agree with me in this fact, that after a woman has had one or two convulsions, many of them will vomit and reject large quantities of fluid. I think I have seen them several times reject two quarts and perhaps nearly four quarts at a time. In my first years of practice I used to rely principally upon the stomach for giving medicine. But I do not think it is ever safe to rely on the stomach in the case of convulsions, thinking that your remedies will be absorbed. I do not think there is any certainty of their being absorbed. But the patient will take them, and after a time they will be thrown up, and with them a large quantity of fluid. Although sometimes I have given a cathartic after the stomach had been thoroughly emptied, it would act. I simply speak of this as having been my experience. I have seen a dozen cases of puerperal convulsions; and from what I would learn, it is never safe to rely on the stomach, thinking that your remedies will be absorbed. I would either apply them hypodermically or by the rectum. The rectum will absorb them and they will act quickly.

Dr. Foster, of Portland, Me.: I wish to speak of the advantage that will come, in addition to that already named by the doctor, of turning the child upon the abdomen, of introducing, in case it is not at once delivered, the two fingers of the other hand into the mouth of the child, opening it in that way, if you find the child's head is not going to be delivered at once, bringing the chin down in this way, and at the same time opening your fingers a little and you will allow air to enter the child's mouth. You will perhaps now and then save a child in that way.

The other matter is in regard to hemorrhage. I have found, I thought, very great benefit in case of hemorrhage from the use of vinegar. In my practice it has given better results than anything else I have ever used. I am in the habit of taking a sponge, if I can get one, or a piece of cloth wet in vinegar, introducing it into the vagina, or into the womb if the womb is open, and I have never had occasion to use it a second time. It seems to act very admirably.

Dr. Nichols, of Franklin Falls: The remarks I wish to make are in regard to the use of the forceps. Dr. Childs said the forceps

are abused very much. I think they are abused very much. I think that physicians that use them are abused very much. They are, in my opinion, one of the most valuable instruments known to the intelligent physician. And there has been a great deal of talk in regard to safety of using instruments, meaning forceps. When to use them must be determined by the intelligent judgment and education of the physician. If he does not understand how to use them, it is never safe for him to use them. If he is not skilled and wise enough to apply a pair of forceps without causing the slightest injury to the mother or child, he is not a safe man to use them at any time; and nature had better take its course rather than to have them used by one who does not understand the mechanism of them. There is hardly a person of average medical standing but ought to know better than to draw the instruments straight, if they have ever in their lives seen the pelvis divested of the soft tissues. It has been said that the forceps are used to save the time of the physician. It is not a consideration of the comfort of the physician; it is not a case for him to consider his time. If he can go to the case in the first place, it is his duty to remain with the woman and give her all the time she requires, all the attention she requires, or else refuse to go in the first place. The forceps are primarily for the mother in every instance, and can relieve her of more suffering than any other means, probably; and when in the intelligent judgment of the physician there have been a sufficient number of pains and sufficient expenditure of force to have delivered the child, and it is not delivered, it is his duty, I believe his sacred duty, to apply the forceps and deliver that woman as soon as possible. There is no more nor as much necessity, I speak from my own little experience, of rupturing the perinæum with a pair of forceps, intelligently applied, than there is by waiting and waiting till the perinæum is completely worn out, ruptures from the force of the head being forced against it by the force of the uterus. I can recite four instances where physicians have sat by the bedside and waited thirty-six and forty-eight hours for nature to take its course, and it has taken its course; the life of the child is gone, the mother has been completely exhausted, and a physician was sent for who applied the forceps immediately, and saved the

mother and the doctor. The child was dead, and it was a demonstrated fact that every one of those four infants could have been saved if the forceps had been applied at the proper time, because there was nothing to prevent except the condition of the mother; and a man under those circumstances is as amenable to a suit for malpractice as though he had pulled the child straight out of the vagina; because if he does not dare to do it himself, if he does not have requisite skill, send for some one who does. I do not think he should take into consideration his comfort or his time, nor anything of the sort.

Dr. Whittier, of Portsmouth: There is one point I wish to speak of in relation to the application of the forceps. In cases where the curvature of the pelvis is not up to nature, or, in other words, too straight, then, as a matter of necessity, the sooner the forceps are applied the better for all concerned. But another point, in the traction produced or given to the handles of the forceps. If when we deliver the head with the forceps, the handles of the forceps lie upon the abdomen of the patient, we shall have no trouble about rupturing the perinæum. Now, in many cases (Dr. Stackpole spoke of it in waiting), if we wish to support the perinæum, the only way that it can be supported intelligently is simply by placing the fingers against the head of the child, and letting it remain until it is time for it to be delivered. You will then have no trouble at all, neither will you have a rupture of the perinæum. A gentleman said to me at one time, a physician, "I have stood by a bedside and seen the perinæum ruptured with the head passing through it. Why should not I have applied the forceps?" I said, "You should, and you should have been sued for malpractice for not applying the forceps or stopping the head from coming through."

There is one point in relation to convulsions that I did not notice was mentioned at all, and that is in relation to the thickness of the pulse. I do not believe there is any too much blood in a patient who has convulsions. I do not believe we have any blood that necessarily need be taken away. In other words, I believe there are other means which will do equally well, and we save the blood to help the patient on with her recovery. If the pulse runs up to a 140 or 150, I believe in veratrum virid. as one

of the best things that can possibly be given. Give that in ten, fifteen, or twenty drops if you will, until the pulse comes down to 90 or 95; and in several instances where I have used it the patient would open her eyes and talk and come out of the convulsions, after she had been bled in one case almost to exhaustion.

Dr. —— ——: In regard to these convulsions, in the neighborhood where I have lived for the last thirty-five years we have had several cases, one no longer ago than last Saturday, of antepartum convulsions; and in speaking in regard to these convulsions I have heard nothing said in regard to emptying the uterus. It has been my practice to empty the uterus as soon as possible — that is, to bring on labor; and also to give bromides, chloral, ether, etc. I have not heard anything said in regard to emptying the uterus.

HOMŒOPATHY.

G. H. SANBORN, M. D., OF HENNIKER.*

Fellows of the New Hampshire Medical Society :

In presenting this my initial paper to the Society, I am mindful of my inability to advance anything original on a subject so much talked about, so easily acquired, and so thoroughly nonsensical to the practitioner of rational medicine. Yet a variety of circumstances connected with my early practice, the homœopathic community which has been my field of labor for the past thirteen years, together with the unjust criticisms of a few of my *very much interested* (*?*) brother practitioners, relative to my method of prescribing, prompt me to present to the Society a short paper on homœopathy.

Samuel Christian Friedrich Hahnemann, the founder of the homœopathic system of medicine, was born in Saxony, April 10, 1755, and died in Paris, July 2, 1843. He received his education in the high schools of his native town, and at the age of twenty he began the study of medicine, taking his degree of M. D. in the year 1779. For the next ten years we find him practising, without success, in several places. In the year 1789 his conscience began to trouble him, and a distrust of the received system of therapeutics caused him to give up the practice of medicine, engaging himself in the translation of English and French authors; and while translating Cullen's Materia Medica, in the year 1790, he was struck with the contradictory method of action of Peruvian bark, and determined to test it on himself. He

* Discussion opened by Dr. L. G. Hall, of Dover, N. H.

accordingly took four drams of the bark in divided doses, and at the end of three days, wonderful to relate, experienced all the symptoms of intermittent fever. The fact that the drug had produced on him the very same symptoms it was required to cure in the sick immediately suggested to him the law, *similia similibus curanta*, or, like cures like. Standing on this one leg as a foundation, the whole superstructure was built, and consists of three so-called principles. 1. Curative remedies for the sick can be selected only by a study of provings on persons in health. 2. Every remedy must be given by itself. 3. The similar and single remedy must be given in the smallest dose requisite to effect a cure. Any deviation or violation of one of these principles is rejection of the whole by the faithful followers.

You will see at a glance how absurd the first two principles are, yet no one will deny the wisdom of the third, i. e., to give the smallest dose necessary to cure.

From a work published by Hahnemann in 1810, homœopathy (which signifies likeness of condition or feelings) first received its distinctive name, and was reduced to a system. Hahnemann also styled it the new school of therapeutics to distinguish it from his former belief, which he called old school or allopathy, a term incorrectly applied to all practitioners of rational medicine by the homœopaths and their adherents.

They claim that the system through disease becomes very susceptible to medicine given in accordance with the law of similars; that the millionth part of a drug, swallowed by a person in health with impunity, produces wonderful effects on the sick; that medicine should be given in doses so small as only to act on the part diseased. If given in too large doses it not only cures the disease, but produces its drug action. If given in too small doses, no action whatever would result.

By this we see they are not limited as to size of dose. Contrary to what many ignorant people believe, they can give a grain or an ounce. If prescribed in accordance with the law of similars, they are homœopaths. The size of the dose has nothing at all to do with it.

You may give the one hundredth part of a drop where the minimum dose is a teaspoonful, and yet be practising rational medicine.

As a test whether you are practising homœopathically or not, examine your patient thoroughly, and, after making your diagnosis, ask yourself what is the best treatment known for the case before you. Prescribe without regard to any creed, and you are practising scientific, rational medicine. On the other hand, you examine the case without regard to diagnosis (for the homœopath never makes a diagnosis, but treats symptoms), and ask yourself what medicine would produce similar symptoms in a person in health, and prescribe the medicine which you think would come nearest doing it, you would be practising homœopathy.

Some medicines seem to act according to the law of similars and contraries, but how ridiculous to think for a moment of creating another disease by drugs, to counteract the existing disease in the system. And yet Hahnemann acknowledged and practised this for ten years before making known to the world his wonderful and, if possible, more absurd law of similia.

Like everything new, it had its followers and for a time it was accepted by many in Europe, and in the year 1825 it was introduced into this country by Hans B. Gram, a native of Boston. During all these years it has been investigated by scientific, impartial men, and, had there been good in it, like vaccination, discovered by Jenner about the same time, it would long ago have been absorbed by rational medicine, whereas to-day the true conscientious followers of Hahnemann's nonsense are few and far apart. It is nearly dead in the land of its origin, and without a chair in any university in Europe.

Although it has done a great deal of harm, and still continues to do so where its influence is felt, by converting not only the weak-minded, but really sick who might be benefited or cured by medication, to a mess of infinitesimal globules, saturated with the millionth part of a drop of some active medicine, which would not vary the ailments of a fly, until they are beyond all earthly power to save. Nine out of ten of those who run after sugar pellets, powders, or dilutions know nothing of the laws or principles of homœopathy, but give or take them because they are fashionable, easy to take, and cheap.

Very many will have their case of globules and little books of symptoms, which they guard with as much care as the miser does

his gold. They will tell you how they broke up in one night typhoid fever with one drop of a fiftieth dilution of aconite tincture, a mild attack of pneumonia with one pellet every two hours of No. 3; so strong is their faith in them it would be useless to contradict or even argue that many ails recover without medication, for by so doing you might convey the impression that your theory alone was right and all others wrong.

Wait patiently for the case when dilutions and pellets fail to "break up the typhoid fever," and then by true, rational medicine, intelligently prescribed, you will do more toward showing them the fallacy of their faith and the utter worthlessness of the pellets than everything else combined.

Their method of proving and preparing medicines is quite wonderful, and must have taken a man of genius, good digestive powers, and fine brain-texture to originate such ideas.

Imagine a sane man swallowing a dose of the eight hundredth attenuation and noting down from time to time his feelings, and attributing it all to the terrific power of the drug. This they call proving. Or fancy him triturating in a mortar, hour after hour, one grain of charcoal to nine grains of sugar of milk, or continually agitating one drop of tincture to nine drops of alcohol, and you have their method of preparation.

They do not stop here, for this, the first decimal attenuation, is too powerful. They take of this one part to ninety-nine of sugar of milk or alcohol. This forms the first centesimal attenuation, and so on through the successive steps of the process, even to the thousandth or millionth attenuation, with not enough of the original drug remaining to moisten a mosquito's bill, or even to be detected by the most powerful microscope.

Podophyllin is their main reliance in constipation. Who of you ever heard of its causing constipation?

Tincture belladonna for scarlet fever — can it produce the disease? What would you think of morphine causing pain, or quinine producing intermittent fever? And yet these remedies are dealt out in the form of parvules, granules, or in some form, to deceive the patient, who gives all credit to homœopathy.

It is not with the conscientious followers of Hahnemann's law that we have to deal, but with a class of so-styled homœopaths,

who, for love of gold and lack of all principle, carry about with them and deal out to the real sufferer medicine to ease pain and produce sleep, the same as the regular physician, and in all other cases give placebos.

We have another class perhaps more honorable than the first, for they are indeed honest in their announcement. I term them the double-barreled doctors. They shoot one barrel for homœopathy and the other for regular medicine; in other words, they change to suit the fancy of their patients.

Can a man conscientiously practise and believe two things? What would you think of a politician whose lack of honor and love of office caused him to vary his principles at will?

We have, I am sorry to say, still another class; although not numerous, you will occasionally find them. I refer to a class of so-called clergymen, who devote one seventh of the week to the salvation of souls, and the other six sevenths are spent in running about from house to house with their little satchels containing sugar pellets and an epitome on homœopathy. They are usually found in the smaller towns and where the salary and donations are inadequate to support a man of brain and energy. They combine the two professions, and manage to eke out an existence.

If perchance you should meet a true homœopath, and he proves to be a gentleman, treat him as such, but have nothing to do with him professionally. Shun as you would the evil one himself all bogus pretenders. The chief concern of many is the treatment of all ails, from whatever cause arising, by medicine in some form. Now experience has taught us that more than one half the ailments of mankind recover by good nursing and proper hygienic surroundings. Learn, then, to distinguish cases which nature cures from those which nature cannot overcome, and do not be guilty of prescribing iron tincture, quinia, gentian, and other drugs, to disgust and nauseate your patient, when a little sugar of milk or mint-water will answer better. Although no honest man will knowingly change from right to wrong, yet it is very necessary for all of us who are located in a community given to isms, and dependent on our practice for a livelihood, to prescribe something in every case. It is very fatal to the young

practitioner's future prospects if in his first cases he fails to give something, and informs his patient that nature will effect a cure. He is immediately discharged and a bogus homœopath called in, who, by his business tact and wise looks, magnifies a slight coryza into pneumonia, sore throat into diphtheria; calls for his tumblers and water, into which he drops two or three drops of his fiftieth dilution, with instructions to take teaspoonful doses every two hours alternate, and be sure and not disturb the sufferer if asleep. If in the preparation of his alcohol and water the tumbler should crack, it adds so much more to his glory and the wonderful strength of his medicine is heralded from house to house, and he gains more credit for curing the case in a week than you would if the same case recovered under your care in one day. This is not fanciful, but true fact, as very many of us know.

We, as practitioners of rational medicine, hold to no one school or creed, but choose from all; not ignorantly or for our own advantage, but for the benefit of our patients. We prescribe quinia in ague, but can we attribute its specific remedial effect on the disease to any law of similars or contraria? We know it produces satisfactory results, and it is enough. Our total ignorance of the *modus operandi* of any agent does not in the least interfere with its availability in the treatment of disease where the treatment has proved to be successful. We do not know — and even though we did, would it matter? — why sugar is sweet or sulphuric acid sour. It would be interesting to know how bitters improve the appetite, or iodide of potash cures syphilitic rheumatism. Opium lulls pain and produces sleep — can we tell how? The most wonderful and effective medicines have been discovered by accident. Mercury, the much-abused and valuable remedy, was made known to the world by the alchemist. Cato, the censor, while he forbade his son even engaging a physician, dosed his own wife to death, and even attempted to reduce dislocations by repeating magical words. He also recommended cabbage as a sovereign remedy for many diseases. Perhaps Cato had some knowledge of the law of similars, and thinking his wife a good subject, gave her cabbage in heroic doses as a proving.

Contrary to the mathematical law (a part cannot be greater than the whole), it would seem by the process of trituration of a few drugs that the particles are more completely subdivided and the latent power of the drug is set at liberty, or the medicinal properties are intensified. We know one or two grains of calomel or podophyllin triturated with five grains of sugar of milk, and given in doses of one grain repeated every hour, act in many cases as a purgative, when the same amount of the drug given at one time would have no effect.

Can we attribute this to the law of similia? or in any way associate it with the so-called homœopathic principles, simply because these two drugs seem to act with more power by trituration, while others fail to respond? We know that a certain number of bricks will build a house; but what would you think of a man who started out to build with a single brick? And yet the all-wise, dreamy, infallible Hahnemann, because he happened to have symptoms of ague, in a malarial district, three days after taking Peruvian bark, shut his eyes to everything else and cried, "Eureka!"

The homœopaths never investigate the cause of disease; their medicines are all specific, and headache, from whatever cause arising, is treated as such. The torpid liver or constipated bowels, as the source of the evil, are ignored, and with them are of minor importance. Nature effects a cure after a time, but gets no credit for it.

According to "The Hahnemann Monthly," a journal devoted to homœopathy, we find the very interesting fact that a new specific for the cure of profanity has been discovered in anacardium, when the propensity to swear comes as a result of mental disease. It is, however, useless in cases existing as a result of low morals. A complete cure is reported by anacardium (dose not given) of a minister, who, try as hard as he would, could not help giving way occasionally to profanity. Another remedy reported as producing a disposition to swear is nitric acid, although powerless to do good excepting after the abuse of mercury.

There is fashion in medicine as well as in dress; and just at this time it is well for us to follow in the popular wake. Homœopathy has caused many old things to be discarded for new.

Bleeding, purging, and blistering, practised to an alarming extent in former times, are fast fading from our view, and even now, with many of the younger members of this Society, bleeding is one of the lost arts.

We find we can relieve human suffering with far less medication than formerly, and our preparations are more elegant and less disgusting to patients. Granules, parvules, and in fact small doses of all medicines often repeated, seem to give better results than a large dose given at once. In following this, the bogus homœopath may claim you are practising homœopathically. You are not adhering to any foolish creed, but practising rational medicine.

It does not pay us to spend time in investigating a subject thoroughly tested and pronounced worthless by intelligent minds. Yet it is our duty and privilege, if we find good in any one school of medicine, to embrace it. In conclusion, perhaps it would be well for us to consider the motto of Constantine Hering, "*In cutis unitas, in dubiis libertas, in omnibus charitas*": in that which is proven, let us have unity; in doubtful things, freedom of thought; and in all things let us have charity.

DISCUSSION OF THE PAPER ON HOMŒOPATHY.

Dr. Hill, of Dover: The subject has been very ably developed by Dr. Sanborn, and treated very well, though I believe, if I understand the man, he had an impression of a different character in his earlier years. It is to us a most absurd and ridiculous affair; and yet it is claimed by some that there are some advantages which have come to us from homœopathy. We may have learned something, as he said here, of giving repeated and smaller doses instead of larger ones. We have all of us learned something from our grandmothers, and from the old neighbors in our neighborhood, ladies and friends, and every one with whom we come in contact; but for homœopathy I have an absolute hatred. It is so nonsensical that I dislike it, and for years I did not meet a man who pretended to be a homœopathist. On one occasion I was called to see a young lady who had been sick some time, and had been treated by a homœopathist, and they sent for me.

He came in while I was there, and I had several times before had occasion to come in contact with him, or to come in opposition to him, to see his patients. And I said to him, "Now, this is not pleasant. I do not want your patients; and yet you know, while you stand where you do now, I can have nothing to do with you." I hated him so badly for making the pretence that he did that I said to him, "I do not believe there is an honest or intelligent homœopathist on the globe." He said that he did not pretend to be a homœopathist. "Well," said I, "your friends regard you so. Why do you occupy that position?" He said he could not answer for that; he did not pretend to be a homœopathist. He had practised homœopathy right along for years, and was regarded in the community as a homœopathist. He has since told me, "What you said about there not being an honest, intelligent homœopathist on the globe is true, and I do not think there is one." And he has abandoned it, and come out and discarded everything of the sort. He says there is nothing in homœopathy. You might as well go up into ether to build a bridge across a stream as to go into homœopathy. Another pretended homœopathist, when somebody asked him something about homœopathy, said, "I have not practised homœopathy for two years. There is nothing to it." Others have done and said the same thing in my presence and hearing. I believe it is dying abroad, and it is held up in this country only by schools and hospitals which try to maintain themselves by that sort of thing. What can be proved or shown as to the effect of one hundredth of a grain of charcoal or one hundredth of a grain of pulsatilla. There is not a chemist on the globe who could find it if it was put into as much water as they put it in. As I said, it is not now living or flourishing anywhere, except where it is associated with some school or college. The more you shake the medicine, the more active it becomes. If that is true, why would it not apply to milk and other things in domestic use. The thing is dying out, and I think all you have to do to-day is to let it alone. Do not, as is done in New York, consult with them and associate with them. Just let them alone and we have no trouble with them.

Dr. Douglas: I think the doctors in New York are very much

of the opinion of Dr. Fordyce Barker, whose name is known through the world. He was sent for in a case of obstetrics where the attending physician was a homœopathist, and was afterwards charged with consulting with a homœopathist. "No," he said, "I was not consulting with him; I told him what to do, because he was ignorant." The remark that if you let it alone it will die out applies not only in New York, but in New Hampshire and everywhere else. We would hardly think it dignified to kick very hard against the wind; and we consider it so insignificant and so worthless that we only let it alone, and not fight against it and uphold it by opposition. It will certainly die out, and it is dying out, and dying out very rapidly in New York city. The former president of the homœopathic society and the former secretary are denouncing it over their own signatures, and they use medicine as rational men use it who understand the use of it, and have been received into the county medical society of New York; and we would be glad to get every honest, successful man who will renounce homœopathy or any other pathy that is false, and bring them in. That is the feeling in New York.

NEWMARKET'S EPIDEMIC OF DIPHTHERIA IN 1885-86.

BY CHARLES A. MORSE, M. D., NEWMARKET.

Mr. President and Fellows:

In presenting this paper for your consideration I shall not attempt to give anything new in regard to the etiology, diagnosis, prognosis, or treatment of the disease, but shall confine myself to the epidemic as seen by myself, and to such information as I was able to obtain from my brother practitioners.

The town of Newmarket, on the line of the Boston & Maine Railroad, one and one half miles east of South Newmarket Junction, is situated upon the west bank of the Lamprey River, which flows into what is known as Great Bay. The tides rise and fall about ten feet. The soil of Newmarket is sandy, with a substratum of clay. The main portion of the town being higher than the river and tide-water, and sloping in that direction, gives us an excellent opportunity for drainage, were it improved. But the main sewer, running along a portion of the main street, is higher than the cellar bottoms. These cellars have thus ample opportunity to become filled with water in the spring and fall, and a majority of them contain more or less stagnant water during the year. More than once has the question of sewerage been agitated, but we have always failed to get an appropriation of the town's money for that purpose.

The population is of a mixed character, and numbers about two thousand three hundred people, at least one thousand of whom are French Canadians. Having such a class to deal with,

it is surprising that the mortality from the epidemic was not greater, for when a dozen or more persons live in one room it is almost impossible to obtain any satisfactory results from medical treatment. I know of one house where twenty-seven human beings ate and slept in one room which was by actual measurement fifteen by nineteen feet.

The first case of diphtheria noticed in the epidemic of which I speak occurred about the first of October, 1885. A boy about twelve years of age, son of one of the best families in town, was suddenly stricken down while attending school in what is known as the primary school building. This was the only known case in town at the time. For days and weeks his life was despaired of, but in time he made a complete recovery, and is now strong and well. From that time on until about the first of May, 1886, one hundred and twenty-three cases were treated by the resident physicians, with a total of twenty-seven deaths. The youngest patient whom I saw was eleven months old; the oldest was forty-four years of age. By far the larger number were children between the ages of four and twelve years. Whole families were taken down, and in one instance I had a mother, her nursing child, and five other children of her family, all sick at the same time. All were in beds upon bedsteads or upon the floor, no two patients being in the same bed. In every case isolation was demanded and enforced as far as possible, but you are all well aware that the population usually found in a manufacturing town is unreliable, and that it is almost impossible to do with them as we are able to do with a more intelligent class of patients.

Taking these facts into account, I think that our per cent of recoveries will compare favorably with those of epidemics in other places. You may ask, "What was the probable starting-point and cause of this epidemic?" There have been quite a number of theories advanced, but to positively prove them we have been unable. As the first patient was attending school in our primary school building, this structure has received more or less criticism, whether justly or unjustly I know not. But I do know that a majority of the cases occurred in children who attended that school, or who were members of families having children attending the school. Out of a school of forty-six children,

twenty-eight suffered from the disease and fifteen died. Also a young lady, who was substituting for the regular teacher, was taken sick, and died in about five days.

The local board of health made a thorough examination of the building and out-buildings, but could not give us a satisfactory explanation of the probable cause. The school was closed, and the buildings were subjected to a thorough cleaning in the line of scrubbing, painting, and whitewashing. A goodly amount of sulphur was burned in the cellar, and since then no cases have been noticed as coming from that vicinity.

A case here and there has been seen, and from May 1, 1886, to June 1, 1887, five deaths from diphtheria have been recorded. Our treatment in these cases was that laid down in the latest text-books, changing from time to time, as each individual case might require.

I used, in all my cases, local applications to the throat, with a good amount of gargles and washes, and for young patients the spray from a hand or steam atomizer was the local application. I am a firm believer, with my limited experience, in the use of plenty of water, water containing a weak solution of carbolic acid, or of chlorate of potassium, to be used about the patient.

If common sulphur cost $10 per pound, ten times as much of it would be used for disinfecting purposes. I believe it to be one of the best medicines that we have. Iron, quinine, and many other remedies all have their places; but good care, good nourishment in the smallest possible volume are the things to be relied upon. Diphtheria being a constitutional disease, it behooves us to keep up the strength of our patients. Great care should be used in regard to the surroundings of the patient. Only necessaries should be allowed in the room. Better have too little furniture in the room than too much. I generally have a large pail for the reception of all sputa and cloths from the patient, and I insist that boiling water with a strong solution of carbolic acid shall be added to this waste before it is disposed of; and too much care cannot be taken in this direction.

Members of the family whose services are not required in caring for the patients should in no case be allowed to visit those

sick with this disease. In fatal cases, burial should be insisted upon as soon after death as possible, no public funeral being allowed. When the minds of the people at large have been brought to realize the contagiousness and severity of the disease, then shall we more fully be able to cope with it, and until then we may expect that a large per cent of our cases will prove fatal.

The severity of our epidemic may be judged by referring to some of the cases after convalescence had begun. Many of the patients suffered from partial or total paralysis, some children being obliged to learn again to walk; others to talk; and others still were more or less troubled by paralysis of the muscles of deglutition. In one case a young man lost almost the whole control of the sphincter muscle of the bladder, being unable to retain his urine; but his case yielded quickly to nux vomica and the battery. One other case of interest to me was that of a boy thirteen years of age, who, with two other members of his family, had the disease quite severely. All had more or less hemorrhage, but finally recovered. This boy suffered more or less from loss of vision, being obliged to wear glasses. He was not able to see at all for months, but gradually his sight returned, and now, after about one and one half years, he is able to see quite well by the aid of glasses. I examined the eye as best I could, but saw nothing abnormal.

Our townspeople, having learned the lesson at the cost of the lives of some of their brightest children, will see to it that in the future Newmarket's sanitary condition shall be a very great improvement upon that of the past. To-day we are in a better state of cleanliness than ever before, and we shall not remain quiet until we have obtained, in the line of sewerage, that which the signs of the times demand.

DISCUSSION.

Dr. Conn: It seemed to me, in the reading of that paper, the writer struck the key of his position in the last sentence, almost, of his paper; that in the time of epidemics of diphtheria and those of a kindred nature we shall be obliged to rely upon prevention rather than cure. Wherever epidemics occur of a con-

tagious, infectious, or malignant nature, like those of diphtheria and scarlet fever, there will always be mortality attending a certain number of cases. And in our efforts to save life in epidemics of that nature, we must rely upon prevention, or, rather, stop the disease before it commences.

Dr. Douglas: Unlike our great Teacher and great Physician, I came not to minister, but to be ministered unto. Yet this subject is one that interests me specially, and I would like to say two or three words. In the treatment of diphtheria let your remedies be given very often. If there is any one thing that is of importance it is to give remedies very frequently; not so strong as to be objectionable to the child, but so frequently they can get the benefit of it. With reference to drugs, probably we are all agreed as to what is best.

Dr. —— ——: While there is unanimity of opinion in regard to internal treatment, there is great diversity in regard to local applications. Some do not apply local applications at all. Others believe they are of very great use. I have practised the use of local applications, and particularly muriated tincture of iron, and more especially subsulphate of iron, blown upon the throat. I think I have had better success with that treatment than with any other, and I recommend it to the profession.

Dr. Whittier: In the beginning of my treatment of diphtheria I always made local applications; nitrate of silver at that time was popular; a very good thing, I thought. I did not suppose I could cure a case without the local application of nitrate of silver or some strong solution, to get rid of the exudation. I practised that for years; and I finally came to the conclusion that it did not amount to anything. I think the local applications could be as well applied by medicines which went down the throat and into the stomach as to make a local application with a sponge or brush or anything of the kind, except perhaps in the few cases where the throat was filled up. Then, as a matter of course, the local application did good in this way, that it cleared the throat for the time being of accumulation of matter. A tincture of chloride of iron will be applied to the throat by the process of swallowing it; as a matter of course the gargle does not reach the posterior fauces at all. Subsulphate of iron is a good thing

if you want to apply it to patches. It does no harm. In fact, it puckers them up, and they fall off readily in a few days. But I have had as good success as any one could have in diphtheria, I think, and I do not think I have made a direct local application for five or six years; I do not know but it may be ten. I use chloride tincture of iron in large doses, and I use it frequently. I practically saturate the system with it; and I believe that either combined or alternated with perhaps aromatic spirits of ammonia, being a very pleasant preparation of ammonia, is the best treatment you can adopt. I am satisfied that chloride of potash does very little good, further than perhaps the process of gargling, which clears the throat. During the last year before this, from the 1st of January to the 1st of January, I had thirty-six cases of diphtheria in which the throat was covered by the parchment patch. I do not consider any other cases of sore throat in that number of cases; and in not a single case did I apply any local application than what went down into the stomach. They all lived; and I submit that was the result of the treatment.

Dr. Hill: I hope that the members of this Society will not dwell too much or attach too much importance to the contagiousness of diphtheria. For myself I do not believe it is as contagious as most people think. I think with proper precautions it may be avoided. The same cause which produced the first case may produce others; but I do not believe that the second case often comes from the first. The common opinion occasions a great deal of alarm, because the neighbors sometimes stay away from the disease, and the family sometimes suffer from want of assistance in nursing, etc.

REPORT ON THERAPEUTICS.

BY LUTHER PATTEE, M. D., OF MANCHESTER.

That therapeutics or the art of curing or relieving those afflicted with disease or bodily suffering should be the goal to which all medical knowledge should lead, no one can deny; that it really is that, no one can hardly claim. During the present century almost a complete revolution has taken place in anatomy, physiology, biology, and chemistry; and although many discoveries have been made and improvements in treatment introduced, therapeutics has not kept pace with other branches of medical knowledge. The records of every medical society in this country and in Europe, as well as most of the modern treatises on medicine, will testify to this assertion, many of the latter taking scores of pages in discussing the theories of disease and devoting a few lines only to treatment. Historically therapeutics is coeval with the art of medicine itself and was nearly synonymous therewith, and its definition should be sufficiently comprehensive to include all means that can be successfully used to cure disease or repair injuries, external as well as internal, psychological as well as material. It may be neither unprofitable nor uninteresting to note briefly the evolution of the healing art, to know what our predecessors have done with so much of their notions of pathology as will do the mjustice in their practices, and, moreover, that we may not fall into the error of the inventor who, having spent years in perfecting some pet mechanical contrivance, finds upon applying for a patent that his discovery had been conceived years before. We shall see that all the theories of disease of the

present generation have been entertained before, and even the tricks of the medical charlatans, jugglers, and fakirs have deceived the rich, the wise, and the strong, and the charm-stones, talismans, clairvoyants, faith-curers, magnetic healers, praying bands, and Christian scientists, or their counterparts, have astonished and captivated the poor, the ignorant, and the weak, among all peoples, savage, half-civilized, and enlightened, in every continent and in every age. Civilization is of slow growth, part being learned and part invented or discovered, man being naturally inventive as well as imitative. Thus almost all people have invented some means of shelter as well as of clothing where the weather requires it. They invent similar means of capturing game. The aborigines of Brazil use poisoned arrows just as do those of the interior of Africa, each, however, using an entirely different poison. The art of producing fire by friction has been discovered, and is still practised in all quarters of the globe, the details, however, varying somewhat with the different peoples. The art of navigation, including the use of sails, has been discovered and practised in all parts of the world. The same may also be said of many of our domestic arts, domesticating animals, disposing of the dead, religious beliefs and forms, and even of distillation and the metallurgic arts. The practice of medicine offers no exception to the rule. It has been of slow growth from the most primitive times, and is still practised by many peoples in their original and peculiar methods, phlebotomy being frequently resorted to by the use of instruments of their own make from stone or bone by the Samoieds of Northern Europe, Araucanians of Patagonia, and the indigenous races of Australia. They also apply a tight band around the head for headache, some make use of the moxa, others of massage, etc. They give various vegetable infusions internally, coca in South America frequently entering into the composition of the mixtures. The Australians apply splints of wood or bark to fractured limbs, which they ingeniously fasten in place with thongs of their own fabrication. Many of them will sit in mute silence with their patients for hours in as approved a fashion as the very best Christian scientist of the present day; nay, they even do more, for if not successful in the silent way they fall into

a trance, in which they remain many hours, this suddenly giving way to the most violent and ludicrous contortions of the body, rivaling the most successful clairvoyant of the nineteenth century. Waking from this, they apply the mouth to some part of the patient's body and suck violently, saying they have discovered the cause of the malady in their dream. As a result they exhibit some unusual animal, as a lizard, or some odd-shaped root, or perhaps an article of their own make, and proclaim this as the real cause of the disease, which they having removed, pronounce the patient cured. The Chinese, Japanese, and other races of Eastern Asia have methods of their own, as also had the Aztecs and Peruvians. Recipes as well as a treatise on inflammation found in Egypt show that this ancient people had very sound notions concerning disease more than 1400 B. C. In the eleventh century B. C. there was a college of physicians in Egypt to which both sexes were admitted. There were specialists, oculists, dentists, and those who devoted their time to obscure and chronic diseases. To guard the public against fraud and the rash experiments of young and inexperienced physicians they were required to follow a prescribed course in each disease, and were held strictly accountable with their lives for the consequences if they departed therefrom. Darius, of Persia, 520 B. C. and nearly one hundred years before Hippocrates could have attained celebrity, summoned physicians from Egypt to treat him for an injury to one of his ankles, but failing to give him relief from the excruciating pain they were ordered to be executed. He was subsequently cured by Democedes, a Greek captive and noted physician, by poultices, embrocations, etc. He afterwards cured Atossa, one of Darius's wives and daughter of Cyrus, of a so-called cancer in the breast. Hippocrates, 460 B. C., is usually considered the father of medicine. That his methods or theories were original with him cannot be admitted. That he collected, classified, and preserved for future generations most that was then known of the natural history and treatment of disease, thus placing the physician in an honorable and special position, a position which he has occupied to this day, thus raising medicine from a mere art to a science, is sufficient glory to his name. His doctrines, like all medical theories, were inti-

mately connected with the philosophy of the times in which he lived. He regarded the body as composed of the four primary elements, earth, water, air, and fire, variously combined to produce the four cardinal humors, blood, phlegm, bile, and black bile, the equilibrium of which was health, and any disturbance in their relations disease. His remedies can easily be inferred — venæsection, purgatives, and expectorants. His internal remedies were selected mainly from the vegetable kingdom, and must have been somewhat limited, as the Greeks knew of only about six hundred species of plants, one hundred and sixty or one hundred and sixty-five only of which were used in medicine. They were prepared mainly by decoction; sometimes, however, they were preserved in wine, vinegar, and honey, alcohol not being known to the Greeks. He paid great attention to critical days, and urged the importance of giving each remedy at the exact time; hygienic means like diet, rest, exercise, ventilation, bathing, etc., were insisted upon, and certainly his disciples did not neglect psychological treatment in purely mental diseases. Antiochus, son of Seleucus, king of Syria, was seized with a lingering illness which baffled the skill of his physicians, and at last Erasistratus, a noted physician, was called to attend him, 282 B. C. He spent whole days with his patient, and as a result discovered that his disease was only a love affair, and that the object of his affection was Queen Stratonice, his father's favorite wife. Erasistratus informed the king that his son's case was incurable, as he was laboring under a desire that could not be gratified, as the lady of his affections could not be obtained. The king quickly demanded to know who this august lady was that she could not be obtained for so noted a personage as the prince. The physician informed him that it was none the less than his own (the physician's) wife, and that he could not consent to yield her to the embraces of another. Seleucus upbraided him for his want of friendship, but upon being asked to put himself in a like position, and answer if he would yield his own Stratonice to another, he replied, "Yes, and my empire also to my son." No time was lost in securing a divorce, and Antiochus and Stratonice were crowned king and queen of Upper Asia. The cure was immediate and permanent, and the reward was one hundred thousand crowns.

Hippocratic, or at least Greek, medicine continued to be authority for more than six hundred years to the time of Galen in the second century, and even the latter was proud to own Hippocrates as his master. Many schisms arose, like the Empirics, the Methodists, the Eclectics, the Dogmatists, and finally the Sceptics, who disbelieved in everything, without, however, radically changing the practice. As the Romans had no medical science of their own but pure charlatanism, Greek physicians flocked there in great numbers, but their practice and especially their surgery was too severe for the effeminate Romans, besides they were not always well received by the nobility. Asclepiades by his fine manners and fluent speech, coupled with his flattery and pleasant medicine, always endeavoring to gratify the whims and caprices of his patients to their utmost, gained great notoriety, Cicero and many other illustrious men of letters being his patrons. His maxim was to cure speedily, safely, and agreeably. Antonius Musa was another who departed from the regular practice. He cured Augustus of a serious illness by cold baths, and afterwards Horace by the same means. These Greek physicians, as mentioned above, were not always welcomed by the upper classes. Cato, in writing to his son, says, "You may depend upon what I am going to say as a certain prediction, if ever these people [meaning the Greeks] should impart to us their love for literature and the fine arts, and especially if they are allowed to send us their physicians we as a nation are undone."

Pliny, it seems, was not much more in love with them, and neglects no opportunity in making them appear contemptible and even odious, accusing them of all manner of immorality, debauchery, and avarice. He writes that "of all the arts, physic is the only one that allows a person to practise without undergoing an examination or giving any proof of his skill." They learn it," he says, "at our hazard, and gain experience at the price of our lives." "Only a physician can murder with impunity." From the downfall of the Roman empire till the revival of Greek literature in the fifteenth century, medical science languished, and in fact, nearly expired. A school at Salerno and another at Constantinople kept alive a small spark which still exerted some influence and furnished some physicians whose

minds were not entirely carried along with the great tide of superstition which prevailed at the time. Most of the practice, however, fell into the hands of the priests and monks who lost no opportunity to impress upon the people their divine authority for managing men's bodies as well as souls. The treatment of disease was based upon their religious dogmas and superstitious notions of its cause, and was frequently of the most disgusting and cruel kind. The seeds thus sown by these guardians of the people were not long in taking root, and during the great epidemics in the thirteenth and fourteenth centuries, the "great mortality," as it was called, or black death, the sweating sickness and tarantism, bleeding, with exhortations, prayers, fasts, and pilgrimages to the monasteries dedicated to the various saints, hanging of witches, drowning and burning of Jews, were the chief remedies. To show how men's minds may be carried away by popular excitement and belief, a few extracts from a report made by the faculty of Paris, who had been commissioned for this purpose, will be sufficient. "It is known that in India and the vicinity of the Great Sea, the constellations which combatted the rays of the sun and the warmth of the heavenly fire exerted their power especially against that sea from which great vapors alternately rose and fell for twenty-eight days. This vapor spread itself through the air on the earth in many places, and enveloped them in fog. Such was the case in Arabia, in part of India, in Crete, in the plains and valleys of Macedonia, in Hungary, Albania, and Sicily. Should the same thing occur in Sardinia, not a man will be left alive, and the like will continue as long as the sun remains in the sign of Leo, on all the islands and adjoining country to which this corrupt sea wind extends or has extended from India. If the inhabitants of those parts do not employ and adhere to the following or similar means and precepts, we announce to them inevitable death, except the grace of Christ preserve their lives. We are of the opinion that the constellations with the aid of nature strive by virtue of their divine might to protect and heal the human race." Then they go on to order: "That a large fire of vinewood, green laurel, or other green wood, wormwood, and chamomile should be burned in large quantities in the market-places, in other densely

inhabited places, and in houses." After giving many directions regarding diet, exercise, etc., they add: "Only small river fish should be used. Olive oil as an article of food is fatal. If it rain, a little treackle should be taken after dinner. Fat people should not sit in the sunshine, bathing is injurious, men must preserve chastity as they value their lives." This was in the fourteenth century. The faculty of Paris at this time was the finest in Europe. All physicians in the fourteenth century, however, were not so saturated with the belief in such mysterious agencies. Chalin de Vinario denounced the indiscriminate bleedings practised by the ignorant monks, saying most of those who were bled died. He therefore reserved this remedy for the plethoric, more especially for the papal courtiers and hypocritical priests whom he saw gratifying their sensual desires and imitating epicures whilst they pompously pretended to follow Christ. He pointed out the probable contagiousness of the disease, and was supported by other physicians. Gradually more precautionary means were employed and even enforced. The sick were isolated from the well, infected houses were to be ventilated for at least ten days, and purified by fire, and fumigated with various balsamic and other aromatic substances. Straw beds, rags, and the like were ordered to be burned, and all furniture in infected dwellings to be set out in the sunshine and rain for at least four days. Quarantine was established in some places in 1485, and public bills of health were issued in 1527, all of which had much to do in ridding Europe of subsequent invasions. The dancing mania and tarantism soon followed, and brought a fresh outbreak of superstition. The former was considered the undoubted work of demons, the latter the bite of the tarantula. Music, pilgrimages, etc., were thought to be the only means of any use. Bands of roving musicians traveled through the country doing public service as a preventive and making special efforts for those already sick, "and it was not till the beginning of the sixteenth century that this epidemic dancing mania was made the subject of medical investigation." Greek literature was being revived in Western Europe, infusing new life into all temporal pursuits. The old masters were being adopted as guides in philosophy and medicine. Arabian medicine, which was merely a revised and

somewhat changed edition of that of the Greeks, was making its way from the East, bringing a knowledge of chemistry and many new medicines, especially inorganic ones. They added alcohol, mercury, antimony, camphor, senna, musk, nux vomica, aloes, manna, cassia, rhubarb, and tamarinds, to the previous articles of the Materia Medica. They laid the foundation of the first edition of the British Pharmacopœia, and established the first apothecary shops. Paraselsus was one of the foremost and most active in stripping these diseases of their mysterious origin. "We will not admit," he says, "that the saints have the power of inflicting diseases or in curing them, or that diseases should be named after them. We dislike such nonsensical gossip as is not supported by facts but only by faith, a thing which is not human." Some of his remedies, however, would now be considered quite as ridiculous as those they displaced. Immersion of obstinate women in cold water was frequent, and even bodily chastisement was not omitted. Amongst other things, he introduced the celebrated arcana, a sort of ethereal quintessence prepared in a manner known only to himself, so powerful a specific or antidote to all septic diseases that a single molecule was sufficient to place *hors de combat* a legion of the most pugnacious microbes of modern pathologists. Every physician was expected to be well supplied with his arcana. He also claimed to have discovered in his chemicals the elixir of life, but his own death before arriving at the age of fifty cooled the ardor of his admirers somewhat. Willis in 1659 published a work on fermentation and fever, a doctrine as fashionable for a while as it is at the present day. Haller, a pupil of Boerhaave, was the first to advocate or teach that the true road to therapeutics was in observing the effects of medicinal substances upon the healthy body. Contemporary with Haller lived Hahnemann. He seized upon the latter's idea, turned it bottom side up, mixed with it a molecule of Parascelsus's arcanum, and made himself illustrious amongst a few silly people by proclaiming his great discovery, *Similia similibus curantur.* The introduction of Arabian medicine and the revival of the older Greek authorities led to long and bitter controversies, — as that over the exact spot where bleeding should be performed, whether at the

point of disease or from a vein at a distance, preferably from the arm. Brissot, a professor in the University of Paris, attempted to revive the former, or Hippocratic and Galenic method. This led not only to his deposition from his professorship, but to his expulsion from Paris and a condemnation of his methods by parliament. The introduction of antimony also led to a long and bitter controversy which lasted for half a century. In the latter part of the fifteenth century syphilis made its appearance and spread rapidly over nearly all Europe. Many physicians refused to treat it at all, some on moral grounds, others as neither it nor its treatment was mentioned by their old masters. Mercury, which had been introduced by the Arabians in the treatment of skin diseases, gradually came to be used, but it was not until 1535 that its specific character in that disease was fully admitted. It was used externally as an unguent, as well as internally and by fumigation, the latter method being resurrected as a new discovery nearly three hundred years after. Rules for its moderate and continuous use were laid down, which if followed to-day would be much better practice than that followed by many of our physicians. It is also a curious fact that opium at one time was considered a specific in syphilis. Many theories of disease arose, following the chemical one of Parascelsus, the physical or hydrostatic theory that explained all disease on simple hydrostatic or mechanical principles, and the theories of Hoffman and Stahl, the former attributing all disease action to agitations in a nervous fluid or ether, and the latter to the perturbations of the anima or soul, both being opposed to all materialism as a cause of disease, the tonicity or atonicity of this ethereal or vital fluid determining the state of health. Following the discovery of the circulation, Harvey, Ruysch, and Malpighi thought that the cause of disease was to be found in contraction and relaxation of the blood-vessels. The remedies to correspond with these various theories are easily understood. At the beginning of the nineteenth century came Brown, author of the Brunnonian theory. His capacity for investigating physical phenomena may well be questioned, as he came into the medical profession second hand from the ministry. His theory was that all disease depended upon a certain excitability which all living

bodies possessed, and to the different degrees of excitement occasioned by various excitants. He accordingly divided diseases into two great classes, sthenic and asthenic, the former to be treated by antiphlogistic remedies, low diet, etc., whilst the latter were to be treated by good diet, stimulants, and tonics. His theory found many adherents in Europe and America, and really did good, as it led to a less vigorous use of lowering remedies, and a more supporting treatment generally, many physicians at this time being able to see nothing in disease but inflammation or congestion, carried their remedies, which were mostly bleeding, leeching, purgatives, emesis, antimony, and mercury, to a most ridiculous extent. It was said that Brousais used in his practice one hundred thousand leeches in a single year. Forty years ago every druggist was expected to keep leeches constantly in stock, whereas now one can hardly be found. The change from antimony and bleeding to alcohol, and from mercury to quinine and iron, was no more sudden or less complete than that from water gruel once a day to milk and eggs once an hour, till it seemed as though the only limit to such feeding was the size of the patient's stomach, and the cost of quinine and whiskey; and I think we may safely assert that during the last twenty-five years nearly, if not quite, as much harm has been done by over-feeding in acute diseases as was formerly done in the same length of time by starvation. Disease is not merely debility, and cannot be cured by strengthening medicines alone, nor benefited by introducing into the stomach more food than can be digested or consumed in the system. Such silly practices as giving a child two years old sick with any acute disease whilst the fever is high four quarts of milk in twenty-four hours as I have seen, or of ordering to an adult an egg in a tumblerful of milk every hour in peritonitis, as I have also seen, needs only to be mentioned to be condemned. The same may be said of giving a quart of whiskey a day in pneumonia, or typhoid fever. The disadvantages under which our brethren of the last century labored may perhaps be better understood when we remember that iodine, quinine, morphine, strychnine, and ergot were not used until the first quarter of the present century; atropia, codeia, ether, chloroform, and bromide of potassium till the second quarter,

and the latter in epilepsy till the third quarter; carbolic acid, chloral hydrate, carbazotate of ammonium, salicylic acid, and guarana till the third quarter; and pilocarpine, apomorphia, antipyrine, resorcin, paraldehyde, and cocaine since 1875; the hypodermic syringe and the aspirator till the third quarter. But if they had but few remedies, perhaps they studied their actions more accurately, at least they knew the names of their remedies without resorting to the dictionary or poring over a whole shelf-ful of books of formulæ of medicines already mixed by the manufacturing chemists in more than five thousand different preparations of pills, powders, plasters, triturates, tablets, granules, elixirs, and syrups. A more abominable and disgusting attendant upon the practice of medicine cannot be imagined than such an array of preparations with similar but slightly different names and widely different compositions and strength. In no department of therapeutics is a reform more needed, and it is the duty as well as the right of the different medical societies to join in directing what preparations with their proper names shall and what shall not receive their sanction. In reviewing the practice of the past many accuse our predecessors of basing their treatment upon a theoretical notion of the action of drugs or other remedial means, applied to a certain theory of disease, claiming that the true path to therapeutics is by observing the effects of remedies in the healthy state and applying them to combat certain pathological changes of tissue in disease. It seems to me that they sought in their treatment to combat certain of the more apparent symptoms or characters of the disease, overlooking others just as important, and that we may be accused of the same error to-day, except in some cases in which we treat our patients by means that must be considered purely empirical. If theirs was an era of theory, ours is one of pathological anatomy. If we attempt to build up a therapeutic system based upon anatomico-pathological changes alone, shall we ever be doing more than combatting symptoms? The ancients saw a fever-flushed face, hard pulse, and dry skin. What could be more natural than to seek relief from those symptoms by bleeding, purging, and emesis, especially after having witnessed the effects of those agents in health, and afterwards by the use of

antimony, and in our own times of aconite. A patient has fever, stitch in the side, followed by dyspnœa, of which he dies. A post-mortem reveals pus or serum in one or both pleural cavities. In this case what was the disease? Was it dyspnœa, or the fluid in the chest, or the fever, or the pain, or the inflammation, which is revealed by redness and tumefaction? Bring in the microscope, and we see the cause of these last anatomical appearances in capillaries blocked up by adherent red corpuscles, thrombuses, and effusion of the other constituents of the blood. Here we have gone back a step further still in the chain of phenomena which characterize inflammation, but are we not just as much in the dark as regards the initial vital or chemical cause of all these phenomena as when we started? In the case of the pleurisy our main danger is a mechanical one, and our remedy as purely mechanical, namely, in evacuation of the fluid.

But in peritonitis, in most cases of pericarditis, and in meningitis, diseases very much the same in their nature and on similar structures, but where from the different surroundings danger comes in a different direction, do we adopt the same means? But to take another illustration: that pregnant but meaningless term dyspepsia, which nearly every one to-day doses with pepsin, or, still worse, "nervous prostration," which is used to cover anything from general paralysis to chorea; and insanity, which we all consider to-day as mere symptoms dependent upon some physical disease. But how do our savants tell us to treat it; simply by moral and psychological means, after hygienic ones. What evidence have we that diseases of the brain are more influenced by moral means than those of the stomach or liver? If insanity depends upon physical causes, it deserves decent bodily treatment, like disease of any other organ. If it is a mere psychological state requiring psychological means alone, why not add to the medical corps of our insane asylums a Christian scientist, a magnetic healer or two, or for those over-anxious friends who are in a hurry to have the headstone lettered beforehand, and expect to find in the doctor an infallible prophet, a clairvoyant? The microscope has done much in pathology as well as in biology. It has carried us back one step at least towards solving the mystery that surrounds disease, but knowing just

what the microscope cannot do may enable us the more easily to take another step still, forcing us to remember that many substances may be seen in the aggregate that cannot be seen singly, as soluble coloring matters, and that many may be appreciated by other means, that cannot be seen at all, as saline solutions; or, in other words, that the microscope shows neither molecules nor atoms. That the action of many therapeutic agents, like vital and chemical changes, is more subtle than the microscope, and all physical appearances merely results, there can be no doubt. Therefore we may assert with much positiveness that any system of therapeutics based upon pathological anatomy alone is based upon results or upon a certain phase of disease only, and not upon disease action itself. Again, supposing we attempt to construct a therapeutic system upon the physiological or toxicological effects of drugs or agents, and adopt the maxim "*Contraria contrariis curantur.*" Shall we fare much better? Take for example some of the most simple inflammatory diseases, conjunctivitis, mucous tonsilitis or pharyngitis, or cutaneous eczema—can we produce either of them by the administration of drugs? and even by local irritants or nerve section can we imitate them only in some of the most prominent symptoms, a poor counterfeit at least, possessing only some of the grosser physical appearances. But what do we know of any means capable of producing an opposite condition? What is an opposite condition, if other than a state of health? I am unable to conceive of any such diseased state, and if we cannot produce a given disease, how can we expect any better to produce its counterpart or opposite?

But if we can only imitate these simplest of diseased actions, what shall we say of the various cirrhoses, scleroses, fatty infiltration, degeneration, scirrhus, etc., to say nothing of the epidemic and infectious maladies? But what do we find in actual practice? All the real remedies, those remedies that seem to exert a controlling effect upon diseased action itself, are best known to us simply by such effects, and they give us no explanation of how they act; vaccinia in aborting as well as preventing variola, mercury in syphilis, quinine in ague, and perhaps ipecac in dysentery, sublimate injections in septic cellulitis, and

some other antiseptic remedies have come to us partly by microscopic observations and logical reasoning. Knowing that a person has been exposed to a contagious disease, giving us sufficient warning and time to apply our remedies, who would pretend to say that we can, by the internal administration of medicine, prevent, arrest, or even greatly modify for the better the course of the disease? I have given all the various antiseptics for days before an expected attack of measles, scarlatina, diphtheria, typhoid fever, and gonorrhœa, but always with negative results. One of the worst cases of fever I have treated for years came on whilst the patient was slightly under the effects of biniodide of mercury, which she was then taking and had been for more than a month. I have never, however, treated a patient for typhoid fever or measles whilst laboring under secondary syphilis. From a consideration of these facts, the conscientious and ambitious physician must experience some dissatisfaction in his remedies, and an irresistible inclination to try others. It seems to me that only two methods offer us much encouragement in a search for real remedies. First, the old experimental one by trial of drugs, which is altogether too slow and uncertain for the present age. Second, by investigating more thoroughly the initial vital and chemical changes, which in all probability always precede the grosser tissue changes. Much doubtless may be learned by studying disease in the lower animals and plants, but whence the remedy shall come is altogether too problematic at present; but it seems to me that experience renders it likely that a search among vegetable infusions and tinctures is a vain one. Possibly some of the various vegetable as well as animal ferments, generally known under the name of micrococci and bacteria, most of which, however, are merely the embryonic stages of protozoa and protophyta, injected into the cellular tissues, into the blood, or even into the cavities and viscera themselves, may be followed by results little thought of. These organisms usually show great repugnance to associating with other forms, thus resembling the infectious diseases, and I know of no more effectual means of arresting the development of certain forms without radically changing the menstruum than by adding some other. Moreover, in their modes of development and gen-

eral behavior as well as physical characteristics they closely resemble those found in the infectious diseases, it not being an unusual occurrence to find the counterpart to all these latter, including the noted comma-bacillus, in vegetable infusions, thus indicating that they may, like the entozoa, have other hosts than the human body. From thousands of careful observations on the different parasitic forms, I think there can be no doubt that their non-microscopic products are just as effectual in inducing their peculiar vital activities as the individual bacilli themselves. And although we individually may never witness its realization, the hope is not an unreasonable one that this Society, before celebrating its second centennial, may see the time when all acute inflammatory as well as contagious and epidemic diseases shall be as effectually stripped of their terror, as are anthrax and variola at the present day.

DISCUSSION.

Dr. Nichols, of Franklin: It is hardly fair to expect me, only a poor country practitioner of medicine, to answer such a Hippocratic-Esculapian dissertation. I must confess my ignorance on the ancient history of medicine. I am down, I believe, according to the authority of our worthy secretary for a discussion on therapeutics. As I understand, therapeutics relate to the application of drugs to the cure of disease. I should have been delighted if Dr. Pattee had vouchsafed to have mentioned in his article, aside from the history of medicine, some drugs which we are accustomed to use in our endeavors to assist nature to bring about healthy action in the system. Either he or I have a misunderstanding in regard to therapeutics, as I fail to detect, after listening very carefully, any suggestion in regard to therapeutics in his paper, excellent as it was as an historical article. So I am at a loss where to begin. My rudder is loose, my sails are furled, and I am at sea without any compass.

I noticed one thing which the doctor spoke in regard to its being peculiar in giving a quart of whiskey in twenty-four hours in some acute cases of pneumonia. It has been my privilege to witness the beneficial results of the intelligent application of alcoholic

stimulant in the depressed stage of pneumonia and typhoid fever. I am very certain that I have known of life having been saved by its heroic use. While I do not believe in stimulating every case of sickness that we may have, I do contend that alcohol is one of the best remedies which we have in our Materia Medica when it is applied intelligently. At the proper time it will be referred to again. It will reduce the pulse, it will reduce the temperature, and if carried far enough will save life. I have not time to go into a full discussion of the alcoholic question. I simply mean when it is used intelligently and in properly selected cases.

I will endeavor to get up a little discussion for some of you gentlemen to pick to pieces, in regard to some remedies which I have been using. Some of them are old, and some of them are new. One remedy to which I wish to call your attention, one that has probably received more abuse from physicians outside of the regular school, and from physicians in our school, I may say—I refer to that exceedingly obnoxious drug to some people, calomel. I do not imagine my experience has been any different in regard to calomel than that of a great many other physicians who have taken interest to investigate the action of drugs. I know of very few remedies when applied to certain forms of torpid liver, or call it by any name you have a mind to; you may go back and pick up the universal name that we use when we do not know what is the matter with the patient and say they are bilious. I presume there are a great many cases of biliousness. In fact, I heard a clergyman say one time that he saw nearly half of his congregation had an increased interest in his preaching during the spring months, and in June he found out there was nothing the matter with them except they were bilious. There is something very interesting to me in regard to the action of calomel. I once gave a patient sixty grains of calomel at one time. It was in a case of pelvic inflammation where there had been five abscesses. There was adhesion of the uterus on one side of the pelvic cavity, and she had got into the habit of taking morphine hypodermically, using the syringe herself, and using from three to five grains a day. She had completely paralyzed the actions of the intestines by such excessive use of mor-

phine, and had got her other organs into a bad condition. The liver was torpid, the kidneys were torpid, and she was completely out of order. She went thirty days without having a passage from her bowels. That may seem a pretty large story. At the end of thirty days I gave her sixty grains of calomel and forty grains of bicarbonate of soda. She never experienced any pain from the effects of it. In less than twenty-four hours she had five evacuations of the bowels. From that time she began to recover from the effusion which was in the pelvic cavity. The adhesions relaxed, and her left leg straightened out, and in less than a year she married, and was a pretty healthy specimen of a young lady. The only treatment received after that was tonics.

Now, I do not wish Brother Hill to think I favor homœopathy. But I use trituration of calomel, one tenth of a grain, and the results which can be accomplished with that administered every hour for ten hours in bilious diarrhœa, in vomiting, especially vomiting of children, in cholera infantum of certain kinds, where there is a greenish color of the stools, is something to my mind almost wonderful. I have found from my own experience that it is a good thing.

Another drug to which I shall call the attention of this Society is salicine. My experience in acute rheumatism has been decidedly unfortunate. I have used the approved medicines of old, modern, and middle-aged writers. I have gone back to Hippocrates. I have had some of the best physicians that I could find in consultation. They would say I was doing all that could be done, and did not see anything else I could do, unless to go back and begin over again. My cases of acute rheumatism would not get well. I ran across a little article on salicine one time. The man gave case after case where he had used salicine in acute rheumatic fever, if you admit such a term, or acute rheumatism, inflammatory rheumatism. I immediately said to myself that salicine is my saving angel according to this man's theory. I procured quite a lot of salicine, and, by the way, I put in parenthesis here that I keep my own drugs, and I should advise every other physician to do the same. I put up my own prescriptions and I do my own mixing, and the result is my patients come back with

the little number to me, and I put it up. I began using salicine, and I had a case of rheumatism the next day. The second and third days did not stop the pain, and I applied it. I gave the patient sixty grains of salicine every two hours, and in five days the swelling, pain, tenderness, fever, restlessness, and dryness of the skin absolutely disappeared. I kept the report of the temperature and the pulse and the whole business. I was interested in rheumatism. In cases of acute rheumatism since then I have treated them entirely with salicine. I gave them nothing else. If a little does not stop it, I keep giving it until now I do not weigh it. I give salicine until the pain stops, no matter what the quantity is. And I have given as much as two drams at a dose, and if that does not do it I should give four drams at a dose, because I believe it is absolutely harmless. I never have seen anything but the best results from it. The only trouble in its use is that there is not enough of it used to control the pain. Now, you may set me down as a "crank" on salicine, but that is my experience and belief.

We have a drug with an exceedingly long name, which has been introduced lately — antipyrine. It was first brought out in Germany. Of course you all know the theory, at least you ought to know as well as I do, if not better. It is to reduce the heat of fever. I procured some. The first case I had an opportunity to use it in was a case of incipient phthisis, with temperature of 101 to 102. I kept the temperature of that patient, who, previous to the use of antipyrine, had been ranging, the highest 103, from that down to 100. It produced a slight perspiration, once a little nausea, and increased the urine in quantity. These were the only symptoms which I could notice outside of the reduction of the temperature. As I said, it kept it down to that figure. I wish to state the effect of antipyrine in certain forms of congestive headache. In one case I used it with a lady, where at monthly periods she would be taken the day before with the most excruciating pain, and be obliged to go to bed and give up everything. That would last her about two days. She had suffered much from many physicians. She showed me a closet. I will not begin to tell you how many drugs there were in it. I gave her sixty grains of antipyrine in a

two-ounce solution of water, with directions to take a tablespoonful every hour. Next morning I called to see her. She was doing her household duties. She said, "Look here, do you know you cured my headache last night?" I said, "No, I had not the slightest idea that I did." "The headache began to leave me after the first spoonful, and the third spoonful stopped it." She will not be without her bottle of antipyrine on any occasion whatever.

A short time after the discovery of antipyrine, antifebrine came along with another long name. That had its advocates. I procured some of that, and kept records of several cases in which I used antifebrine. It is something of the nature of antipyrine. It is not easily dissolved in water; it can be dissolved in alcohol by heat; but a very excellent way of administering it is in dry powder mixed with some sugar or something of that form, or even in dry powder in small doses. Its advantages over antipyrine are first its cost, which to a country practitioner of medicine is something. It costs thirty-three cents per ounce, while antipyrine costs $1.50. Second, the smallness of the dose; from four to seven grains are sufficient, and that will accomplish the work of fifteen grains of antipyrine. There are some immediate symptoms which if you get too large a dose of antifebrine will puzzle you for a time. It causes a slight flushing of the cheek, and might possibly mislead you. In too large a dose it will cause lightness about the head, a slight dizziness upon rising; it causes an increase of the urine; it causes, in my experience, more perspiration than antipyrine, and with the exception of headache, which antipyrine will relieve and antifebrine will not, I prefer antifebrine for febrile diseases, in typhoid fever, and pneumonia, phthisis, the only cases in which I have used it. It will reduce the temperature fully as much, but I conceive that in the case of what many of us know to be heart weakness it is not perfectly safe. It causes increase in the action of the heart, if there is what we know as a weak heart. I would suggest to any one that is going to use it to be very careful to ascertain the condition of the patient's heart, if it is an acute case of fever in any form and the pulse is very rapid, because in an overdose — or in fact I should prefer something else.

Now there is a good deal of discussion at the present time in regard to cause of heat in cases of fever. Some contend that the fever is the cause of the disease, others that it is merely a result; and whatever the cause may be, the practical result to the every-day physician is what we wish to bring about. Antifebrine gives me more satisfaction than any drug which I have used for the reduction of temperature, and I believe is designed to fill a place, as we very frequently see about a medical journal, that it is going to supply a long-felt want.

Another excellent drug in typhoid fever, which I have used in two cases only, and one swallow does not make a summer, is the silicate of bismuth. The combination is good. Both drugs separate are excellent in certain forms of typhoid fever, especially if we accept the suggestion of the honorable president this morning in regard to the idealogy of disease.

LACERATION OF THE PERINÆUM.

BY F. B. PERKINS, M. D., LONDONDERRY.

Mr. President and Fellows of the New Hampshire Medical Society:

In a paper read before the Center District Medical Society four years ago, the writer reported three cases of laceration of the perinæum occurring in primiparous patients; since that time the accident has not happened in an average number of obstetrical cases occurring in a country practice. Believing as we do that the immunity from perineal injuries is due to a better knowledge of preventive means, we offer no apology in presenting the subject for your consideration, feeling sure that the worthy gentleman who has been assigned to open the discussion will clear up unsettled points, and still more enlighten us as to how these parturient wounds can be avoided. The topic, as we are fully aware, is old, and nearly worn threadbare from discussions *pro* and *con*; nevertheless, in the anatomical part of a woman's make-up, the little triangular body known as the perinæum often meets with a serious lesion, occurring as an accident to parturition.

Much has been written lately of the structure of the perinæum, its support during labor, and its immediate repair after laceration. Prof. Thomas, in the new edition of his work on "Gynecology," devotes a chapter to a consideration of the perineal body and its great importance in sustaining the contiguous structures; and Dr. Henry J. Garrigues contributes a paper of similar import, on the "Obstetric Treatment of the Perinæum," to the "American

Journal of Obstetrics." These writers both point out the imperfectness of the descriptions of this part of the body in the various works on anatomy. The latter, in particular, seeks to correct many current false impressions. He says: "The fourchette, so generally torn in first labors, is not a fold of mucous membrane, as usually supposed, but is formed of skin. It is, indeed, nothing else than the posterior junction of the labia majora; just within is the *fossa navicularis*." The elaborate description of the floor of the pelvis is well worthy of study, but is too lengthy to be reproduced in this paper. The frequency of rupture of the perinæum is variously stated. In a discussion in the Cincinnati Academy of Medicine, Dr. Tait reported seventy ruptures in one hundred and forty-two primiparæ. Other members believed the accident to occur in ninety per cent of cases. On the other hand, it was stated that in Prof. Braun's division of the Vienna General Hospital, in one thousand one hundred and fifty-seven primiparous cases, rupture occurred but sixty-eight times. This indicates, possibly, a smaller tendency to laceration than exists elsewhere, but it certainly indicates the adoption of more effectual measures to preserve the perineal body from rupture.

We quote from Tyler Smith, who says: "Laceration of the perinæum is no uncommon accident." M. D. Mann says: "It is quite common in primiparæ and after forceps." F. A. Reamy writes: "Perineal lacerations are far more common than is generally recognized by physicians and patients." Says D. Hayes Agnew: "Such accidents doubtless take place in a large majority of cases from ignorance or carelessness on the part of the medical attendant, and yet may and do happen in the hands of the most competent and expert practitioner." A. H. Smith when a student was taught that a laceration was an opprobrium—the result of carelessness; but his own experience taught him a different lesson. The late Prof. George T. Elliott, one of the most accomplished of obstetricians, with all his skill, failed to prevent this accident at times. The following is a specimen: "It became necessary to resort to the forceps, and although he used the smallest and lightest in his possession, and all the usual skill and care for which he was distinguished, an appalling laceration occurred, splitting the sphincter ani, and the vagina throughout

its whole length to the bottom of Douglas's cul-de-sac." The lamented Prof. Peaslee, in a report to the New York Obstetrical Society, said: "I then applied Elliott's forceps, the head being high up in the superior strait. While making traction quite forcibly, but very slowly, the blades of the forceps sprung, and in their descent cut through the perinæum, making a complete laceration through the sphincter ani, and about an inch and a half up the rectum."

In another case he exercised the greatest care in the manipulation of the forceps, during the passage of the head through the soft parts, but neither his caution and skill, nor the care given to the support of the perinæum, sufficed to prevent severe laceration. As causes of ruptured perinæum, most authorities speak of rapid deliveries and large fœtal heads. Dr. Goodell attaches great importance to "the common faulty mode of supporting the perinæum." He says: "If the ordinary mode of support ever does good, it is by retarding, through the interposed perinæum, the advance of the head. But the good thus gained is more than counterbalanced by the evil. Continuous firm pressure with the hand makes the perinæum hot, dry, and unyielding." The same authority in his "Clinical Lessons" gives this explanation of the injury from forceps in these words: "Another cause of this injury is a forceps delivery. Why is a forceps delivery so often the cause of injury to the perinæum? In the first place, through a false delicacy, many physicians deliver the child under the sheet. They work in the dark, and, of course, cannot see what they are about. Under these circumstances, in difficult cases, the physician, worn out by direct traction, is very likely to brace one or both feet on the edge of the bed. The traction thus exerted is uncontrollable, and when the head passes the brim, which it usually does with a jerk, its momentum cannot be checked before it has torn its way through the perinæum; again, in cases requiring but little traction, the use of the forceps will often occasion a slight tear in the vagina, which the passage of the shoulders prolongs through the perinæum." On the other hand, D. Hayes Agnew, in his work on "Lacerations of Female Perinæum," states that: "It is only in unskilled hands that the forceps can be said to do harm in this way." Fordyce

Barker says: "The forceps may be a mechanical cause of rupture, and they may be a most efficient means of preventing rupture, especially in that class of cases where injury to the tissues may result from long-continued pressure upon the perinæum. The danger in the use of the forceps arises from the fact that they are used as instruments of direct traction instead of instruments to complete a normal process,— a physiological delivery of the head." As the country doctor, and the eminent city practitioner too, may unexpectedly meet with these parturient wounds, even when the utmost caution and care is exercised by following the plans and advice of well-known and leading authorities, we deem it not out of place to have a free interchange of opinion respecting the best means to preserve the perinæum intact.

Many methods are mentioned in obstetric literature for preventing laceration. They may be thus summarized:

1. Prevent the rapid descent of the head by pressure upon it; by avoiding the use of ergot; by placing the patient on the left side; by dissuading the patient from making voluntary effort.

2. Relax the vulva and perinæum by administering chloroform or ether; by anointing liberally with belladonna; by performing *episiotomy*; by drawing forward, with the hand, the perinæum and anus, or the perinæum alone by hooking the fingers in the anus (Goodell's plan); by hooking the fingers in the posterior commissure and drawing it backward toward the coccyx with each pain, until the head rests on the perinæum.

Dr. Burk, of the Rotunda Hospital, urges this latter plan as accomplishing, gradually, what otherwise is left for the head often to do rapidly.

Dr. Reamy considers, and we think quite properly, that too much discredit is cast upon the forceps in this connection. With the injudicious and hasty, it is true, the laceration is increased, but in the forceps we have a means of regulating and controlling the advance of the head such as no other method will afford. By the deliberate and cautious use of the forceps, laceration otherwise inevitable may even be prevented.

So important is the integrity of the perinæum considered that

most writers urge an ocular examination of the parts in all cases immediately after delivery. A strong objection to such a rule is the repugnance of both physician and patient to its adoption, but it is not only sanctioned but urged by the leading gynecologists of the country. Opinion is almost uniform, too, in favor of the immediate operation for repair of the perinæum, even in cases of moderate laceration.

DISCUSSION.

Dr. Whittier, of Portsmouth: The operation which was originally described and practised by Dr. Goodell, of Philadelphia, is the one I usually prefer, and to which I wish particularly to call your attention and especially to the manner of placing the first or so-called anal stitch, or perhaps I might better indicate its location and importance by calling it the recto-vaginal-septum stitch. As its name indicates, this suture is placed in the deep tissues of the recto-vaginal septum. The success of the operation will largely depend on placing this suture in a proper manner, and to do it you should be provided with an ordinary perinæum curved needle, and also a long double-curved with a handle. The needle should be entered parallel with the lower margin of the anus, and, say, an inch or three fourths of an inch away. In the operations I have had I have been particular about it and placed it at least an inch laterally from the lower margin of the anus, and carried it diagonally across the fractured portion of the perinæum, upward and inward and forward, and from the surface it ought to be carried two inches or two and a half deep into the tissues. In placing this suture I always point the needle towards the external surface of the body so as to carry it round sufficient tissue so that when the stitches are drawn up, the surface shall be pressed together and held there firmly. And I believe that is a very important thing. If the stitch is put in too directly you may sink it as much in the recto-vaginal surface as you choose, and yet it will fail of its object and you will have a recto-vaginal fissure resulting. Now, then, carry this suture in that way, and if you have any doubt that you have placed it so that you are not going to thoroughly close the parts, you may place another a little higher up, perhaps a quarter of an inch, and carry it a

little sharper upward; the first stitch being carried in this way and the second one further up and being a much shorter stitch, will certainly accomplish all that will be required now. If there is a rectocele as a matter of course in denuding the surface you should denude a V-shaped surface, and you will have to place six or seven stitches all together in order to be sure that you are thoroughly closing the rent. Now, then, to place the others after you have placed the two or three recto-vaginal-septum stitches which do not show anywhere, except the ends of the wires where they have been placed, being entirely sunk into the flesh. If you have a rectocele they would have to be carried through the denuded tissue close to the margin and then from the mucous surfaces that have not been denuded and into the V-shaped tissue, hooking that up and then carrying it up into the tissue over the other side that has not been denuded. By doing that you form a naturally thicker perinæum than you could possibly form without making it at this point double the usual thickness. After having placed your stitches satisfactorily, the best method of securing them is by carrying the ends on each side through perforated shot, and drawing them up with a pair of forceps, at the same time pushing the shot down, and with another pair clamp it up. Take all the stitches in that way, and, after the bleeding is partially stopped, syringe the wound out so as to cleanse it from what blood may be remaining there at the time, drawing the stitches up one after the other, beginning at the lower one and so continue until the wound is entirely closed. You may think, if you never have performed the operation, that if the lower stitch should be placed at the lower margin, or as low as that, it would close the anus, but that is not so. In drawing up this lower stitch, unavoidably the tissues draw it upward and when it is closed you will find it comes up at the upper margin of the anus and thereby producing no trouble whatever. These sutures are all drawn up closely and the shot pushed down and clamped, then with the scissors cut the wires close to the shot. Then you have a perfectly closed wound, showing nothing but the seam and the five or six shot. That I think is the best method of closing a lacerated perinæum for a secondary operation where the sphincter is involved. There is another point which I think is essential, and that is to

use as small a silver wire as you dare to use, or is compatible with safety and strength. And I would say that the No. 27 or 28, perhaps 26 or 27 will do very well. The ordinary wire that would be sold you by druggists or instrument venders would be about No. 23. A smaller wire, No. 27, is much better for the reason that it does not cut the flesh, paradoxical as it may seem. The large wire will cut, practically speaking, by lacerating.

The after-treatment, without speaking minutely, would be as a matter of course closing the limbs, putting a pad between the knees, lay the woman on her side. Previous to leaving the case you should draw the water, and leaving either a catheter to be retained there, or pass it two or three times a day, or as often as may be necessary. It may not always do to leave the catheter in there indefinitely. Sometimes they produce a great deal of trouble. I knew a catheter to be left a week, and the lady said the treatment was worse than the disease. She had inflammation for some time afterwards.

This is the operation which I think is approved by the best practitioners in the country. I have operated many times, and with good success and never had any trouble. But all these little details are very important.

One other matter, and that is with reference to the feeding and also to moving the bowels. I would not move the bowels in an ordinary case, particularly where the sphincter is involved, for six or seven days. Of course previous to the operation, the day before, a dose of castor-oil should be given or some other laxative or cathartic, and after that, if there is any liability to have any trouble, a little opium — although it is not necessary to give opium generally speaking,— I would entirely exclude milk or anything which will produce a large amount of fecal matter. I think nothing will produce as large an accumulation of feces as milk. I would particularly avoid that. After five or six days inject into the rectum perhaps three or four ounces of sweet or castor oil, and with the finger break up any fecal matter which may be in the rectum before having it come away; and using simply an injection of tepid water with a little soap in it or something of the kind. Then I would give possibly a little dose of calcined magnesia, or a light dose of oil, and having cleared the

bowels I would remove the stitches, except the recto-vaginal-septum stitch, or the two, and these I would not remove till after the second operation, which would be about the ninth day perhaps. Then upon removing that you will find, if you have followed the directions and been careful, you will have a perfect success. And I think this operation may as truly warrant a success to the physician performing it, if it is done properly and carefully, and the after-treatment looked after, as any operation in the domain of surgery. There have been and are to-day very many votaries of the one, two, and three stitch operation ; and they claim they get perfect success. I never had the courage to operate with one stitch or two. I should certainly be afraid I should get no success or very poor, if I did get any. I submit the following letter, which explains itself:

DEAR DOCTOR, — I have made no modification in my operation for closing a so-called laceration of the perinæum since the third edition of my book was issued. It is impossible to gain by a single suture, or even two, what I consider is to be accomplished in any operation undertaken for the repair of the vaginal outlet. I have examined several cases where but a single suture had been made, and two months after the operation the appearance presented was exactly the same as before any operation had been made; in fact nothing had been gained.

Yours truly,

THOMAS ADDISON EMMET.

Dr. Adams: There is one statement I understood the doctor to make that my experience within the last year would controvert. I understood him to say that the primary operation would rarely if ever prove of benefit if it was performed after twelve hours. I will state that I was called in counsel on the afternoon of the day following confinement and laceration, and operated with simply a silk suture with the best results, and the laceration extended three quarters of an inch up the rectum. I would state though that I took a great deal of pains to wash the parts, and scraped the raw edges with my knife so it started a little oozing of serum; and then operated as a person would operate ordinarily with a silk suture. I simply scraped it over. Did not cut any part at all; freshening it a little mite so that the serum oozed.

Dr. Whittier: I do not think that controverts my statement at all, because the doctor says that he freshened the surface. After twelve or fifteen hours, unless the surface was in some way freshened you would not get union by first intention.

Dr. Adams: I did not wish the idea to be conveyed and left that there was no chance to operate twelve to fifteen hours after the laceration. I understood the gentleman to say we had got to wait then until the patient got about before we could operate. The result in this case was much better than I have had in some cases when I performed the secondary operation, and, in fact, better than in one case where I did the immediate primary operation.

Dr. Cutler, of Peterborough: Whether an operation under the circumstances Dr. Whittier mentions is absolutely necessary or not, is it possible for the perinæum to heal by keeping the two edges in close proximity without using the suture?

Dr. Whittier: You may get some union in some parts, but you leave recto-vaginal fistulæ and you have all the complications of a poorly treated case. I would not think of operating in that way, and would not countenance it at all.

(The following letter from Dr. Goodell to Dr. Whittier explains itself, and Dr. Whittier very kindly furnishes the Society with a copy of the MSS. for Goodell's Lessons, third edition, revised and enlarged, which we print with the letter.

Dr. Goodell's reputation as a gynecologist and the skill he has shown in developing and perfecting an operation for the cure of the ruptured perinæum is so well known to the profession in New Hampshire, that all will welcome this contribution to the literature on the subject.

The thanks of the Society are due to Dr Goodell for giving us the description of the operation as now performed by him in advance of its publication in book form.

SECRETARY.)

1418 SPRUCE ST., PHILADELPHIA, May 14, 1887.

MY DEAR DR. WHITTIER, — Your letter came just as I was correcting "proof" for the third and enlarged edition of my "Lessons." So I send you the printer's "copy," which you can keep and do with it what you please. This new mode of

mine I have been practising for several years, and it is greatly superior to my former mode, which makes too thin a perinæum.

I never have and never shall perform the single-suture operation. I always put in *as many* stitches as will *wholly* coaptate the parts, so as to gain union by the *first intention throughout.*

Yours truly,

WILLIAM GOODELL.

While warmly advocating the primary operation, I have not found it on the whole so successful as the secondary. By the former I have had three failures, by the latter but one. This lack of success is said to be owing to the flurry usually attending the immediate operation and the lack of skilled assistants, to the irregular surface of the rent which prevents exact coaptation, and to the lochial discharges which insinuate themselves between the surfaces of the wound and hinder union. Two of my three cases of failure were, however, dependent upon other causes. In one, the woman in a fit of mania, jumped out of bed to throw herself out of the window, and, of course, tore out the stitches. In the other (to which I was called by the attending physician) a violent diarrhœa set in on the third day, resulting in a recto-vaginal fistula, which I afterwards succeeded in closing. If upon removing the stitches you find no union, do not give up in despair, but try to promote healthy granulations by keeping the parts sweet and clean, and by placing in the fork of the wound a pledget of lint dipped in a solution of chloral just strong enough to produce some tingling. By these means you may yet hope to save your credit by throwing a bridge of granulations over the anal gap, or by getting more or less of very good union.

Let me here say that rents may also occur, during childbirth, in the vestibule, or neighborhood of the meatus urinarius. Fatal hemorrhage has been reported from such accidents. I have occasionally met with them, and twice had to resort to styptics. If the bleeding be not thus checked, the rent should be closed by fine sutures.

Now, suppose you utterly fail to get union by the immediate introduction of sutures, what is next to be done? Wait until the wound has cicatrized, and the woman has wholly recovered from her lying-in. Then reconstruct her perinæum by the oper-

ation which I am now about to perform upon the patient whom you saw at my last lecture.

Here she lies before us because she missed the golden opportunity for immediate repair. The broken ends of the anal muscle have retracted, which explains the wrinkles and puckers of the lower verge of the anus. The parts are rigid, and otherwise deformed by cicatricial contraction. The chance for the simple suture-dressing has gone by, and she now will be compelled to undergo a tedious and bloody secondary operation.

She is in as fair health as a woman thus afflicted can be. Had she a diarrhœa or a cold, I should postpone the operation; for one untimely movement of the bowels, or the succussions from incessant coughing or from sneezing, would interfere with union. Were she nursing, I should, both for her sake and for that of the child, advise delay until the child had been weaned. Nor should the operation be performed just before a monthly period, but a few days after. Early yesterday morning she took a full dose of oil, and this morning one grain of opium in order to restrain the bowels from further action. To avoid ether-vomiting, she has eaten a very light breakfast.

The instruments needed for this operation are as follows; an ordinary scalpel and a pair of scissors curved on the flat; a long-handled rat-toothed forceps; half a dozen *serres-fines;* a few perforated "number-one" shot, and a shot-compressor, a self-retaining catheter; one blunt-edged perinæum needle, with an eye near its point; silver wire, several surgeon's needles with varying curves, and a needle-holder. All these instruments are, however, not absolutely essential. At a pinch, a pair of jeweler's flat-nosed pliers will answer all the purposes of a shot-compressor or of a needle-holder. An ordinary flexible catheter, if not pushed in so far as to hit the fundus of the bladder, makes a very good substitute for a self-retaining one, such as the Skene-Goodman, which is the best. It can be kept in place by being tied to the pubic hair.

Deeply etherized, our patient will now be brought in the lithotomy position to the end of this table, which fronts a good light. Her knees are supported by these two gentlemen, who also place the fingers of the free hand on either side of the

vulva and stretch it open. In addition I find that this yoke, or shackle, which I brought from England, is of great service in supporting the knees and in keeping them firmly apart.

A third assistant attends to the etherization, while a fourth looks after the sponges and instruments. Of course, one can operate with but three, or even two assistants, as has been my experience in the country; but it is far more satisfactory to have the aid of four. The first thing now to be done is to clip off the hairs around the rent, next to pare its cicatrized edges. But if I should first denude the lateral surfaces, the blood would trickle down over the rectal portion and obscure it. I therefore introduce two fingers into the bowel, so as to put the over-lying and rugous mucous membrane on the stretch, and begin the operation by trimming off the rectal edges of the rent, and by snipping off with the curved scissors a narrow ribbon of its mucous surface. Two small dimples on each side of the anus, which are the retracted ends of the ruptured sphincter, are hooked up by a tenaculum and included in this rectal denudation. Next I catch hold of the left side of the rent with tissue-forceps and denude it in successive strips with the curved scissors. By encroaching inwardly on the mucous surface of the vagina, and outwardly on the cutaneous surface of the vulva, there is gained on the left labium a raw surface a little longer and a little broader than the glazed cicatrix of the original perinæum.

Having finished the left side I turn my attention to the right side of the rent, which is to be denuded in like manner, so as to be the exact counterpart of the left side. Now I seize the rectal edge of the vaginal mucous membrane, which has hitherto been untouched, and dissect it up in a triangular flap. This is done partly by cutting with a pair of scissors and partly by stripping it up. Most operators cut this off, but I shall save it and utilize it in making the inner or back wall of the perinæum and in adding to its thickness. You will understand this better by looking at the diagram I now show you.

This diagram represents the secondary operation, when the rent involves the recto-vaginal septum. The oozing of venous blood, you see, is quite free; and this is usually the case in all operations of this kind, because the parts are vascular and cica-

tricial. Close to the lower edge of the raw surface two small arteries are springing, but I shall not tie them, lest the ligatures should act as foreign bodies, and prevent union. By nipping each one with a *serre-fine* I stay the bleeding. In all operations in which you wish to avoid the use of ligatures, you will find these little spring-clips of great service. I shall leave them on until the wound is ready to be closed.

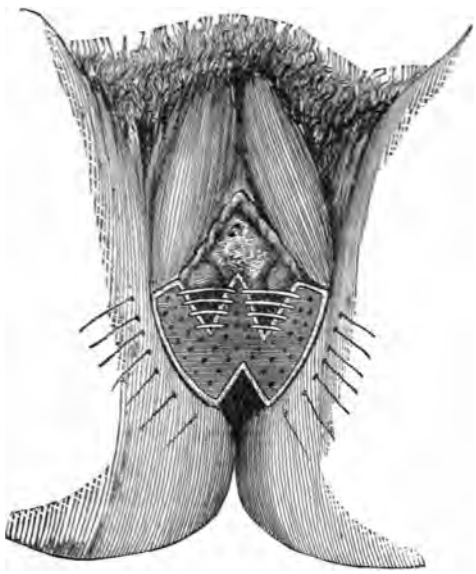

FIG. 1.

See what a symmetrical raw surface we have; it looks very like a red butterfly with its tail cut off. But, before folding its wings, and closing the wound, I hunt for some little islets of mucous membrane which may have escaped the scissors. It is not always easy to distinguish them from the raw surface: so, to be on the safe side, I snip off every suspicious-looking ridge. The sutures must now be passed, and since success, in either the primary or the secondary operation, depends mainly on the manner in which this is done, I bespeak your closest attention. A sharply curved needle held in the jaws of a needle-holder, and

armed with silver wire (Fig. 2), is entered in the left buttock, on a level with the *lower* margin of the anus, and about half an inch away from it. By my finger in the rectum, I pilot this

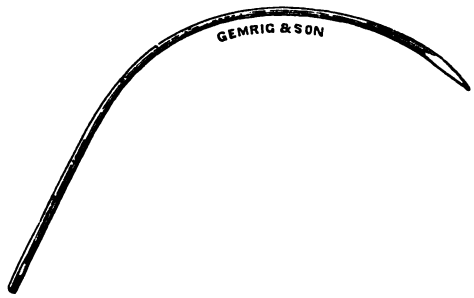

FIG. 2.

needle through the recto-vaginal septum, so that by one sweep it completely girds the rectal rent, and emerges at a corresponding point of the skin on the right buttock. The free ends of this suture are alone visible; its loop lies wholly embedded in the septum. This suture was devised by Dr. Emmet, and a very important one it is whenever the sphincter ani is torn through, or a limited portion of the recto-vaginal septum is involved. It purses up the margins of the slit in the bowel, and brings together the ends of the broken muscle, smoothing out the wrinkles and puckers of the lower verge of the anus.

When, however the slit in the septum is over an inch in length, its closure cannot be safely entrusted to this single stitch. If it does not close it satisfactorily, another suture, with a finer wire and needle, is passed below it, but more superficially, in order to insure the coaptation of the ends of the sphincter.

The perinæum proper I shall now close by several other metallic sutures, which will be carried by my long, curved perinæum needle. The wire which I use, No. 27, is not so thick as that sold for this operation, but as fine as is compatible with safety. Paradoxical as it may seem, the thicker the wire the more likely it is to bury itself in the tissues, for the wire does not cut the flesh, but ulcerates its way into it. Remember this. The first two of these sutures are so passed as to lie completely buried in

the tissues and to appear nowhere in the wound. The remaining four stitches take up the triangular flap and are buried in it, excepting at the point where they enter the flap and emerge from it. Be very careful that these sutures are buried in the flap, and do not emerge on its mucous or vaginal surface, else the circulation will be cut off from it and it will slough. In not one of my cases has this flap ever sloughed or ever failed to unite. I make it and utilize it in every secondary operation on a torn perinæum whether the sphincter is involved or not. It adds greatly to the thickness and to the strength of the new perinæum, whose vaginal cicatrix does not now lie in the median line, as it lies in the numerous other operations for this lesion.

Whenever a rectocele is present, I denude the posterior vaginal wall up to the crest of the rectocele. Then, and only then, do I begin to dissect up the mucous tongue, or vaginal flap. In this way the rectocele is wholly taken in and forms the back and sloping wall of the new perinæum.

Although this long perinæum needle is the handiest instrument for the introduction of these deep sutures, because it is passed at one sweep, it is by no means indispensable. An ordinary surgeon's needle, two inches and three quarters long, and slightly curved, will answer the purpose well, if held in the bite of a needle-holder.

I now remove the *serres-fines*, and, as you see, the arteries do not bleed, but the general oozing is free. This is the usual case, but fortunately the pressure made by the adjustment of the sutures will always stop it. You may, if you choose, secure the wires by merely twisting them ; but from habit I prefer to clamp each one by a perforated shot, and to cut off the wires very close to it. As perfect coaptation has been gained by these deep sutures, no superficial ones will be needed.

The operation is now ended ; but, before removing our patient to her bed, let me empty her bladder. While withdrawing the catheter, I keep my finger closely applied to its mouth, so that the few drops of urine retained within it shall not escape and trickle over the wound. I also fold up a soft napkin, put it between her knees, and bind them loosely together.

Upon the after-treatment also will the success of this opera-

tion greatly depend. In order that no drops of urine may come in contact with the wound, and by irritation prevent union, I shall have her water drawn off until the stitches are removed. Twice a day is usually often enough; but on several occasions I have met with an irritable bladder which urgently called for far more frequent evacuations. Should such a complication present itself, or should the nurse be unable to pass the instrument, or should your patient live at a distance, the Skene-Goodman self-retaining catheter may be worn.

In order not to injure the bladder, it is made bulbous and short, so as just to pass the neck and not to touch the fundus. By a piece of rubber tubing drawn over its mouth, the urine can be conducted into a vessel on the floor, and the bed kept dry and sweet. For the introduction of the ordinary catheter, the best posture of the woman is the one on the back, with the legs and thighs well raised up over the abdomen. The meatus can then be reached without unbinding and separating the knees. The self-retaining catheter with its rubber tube should be carefully cleansed by injecting through it into the bladder twice a day as much warm water as the woman can bear. Otherwise, urinary deposits will clog it up, and may even produce cystitis. For instance, last year I was called into the country to operate on a perineal rent, which extended nearly one inch up the recto-vaginal septum, and was as usual caused by the use of the forceps. After the operation a self-retaining catheter was introduced, which, through some misunderstanding on the part of the attending physician, was not removed. At my next visit, a week later, I found to my dismay the lady in great pain, the catheter and tubing wholly clogged up, and the contents of an over-distended bladder dribbling away over the perinæum. On cutting the sutures, to my surprise and great delight I found that, in spite of these drawbacks, perfect union had taken place. But for two months thereafter the lady was annoyed by so distressing an attack of cystitis that she described herself as having fallen from the frying-pan into the fire. She ultimately got perfectly well; but it taught me a lesson which I wish to impart to you.

Opium will be given to ease the painful tension of the sutures;

one grain every four or every six hours will probably be ample enough. No local dressing, besides cleanliness and daily dustings with iodoform, will be needed. Formerly I used to wash out the vagina twice daily with a carbolated or a sublimated solution. But I found that the manipulation and motion of the patient required in introducing the nozzle of the syringe and in slipping a bed-pan under her, did more harm than good. So now I do not wash out the vagina until after the stitches are out. There is one annoying complication of which you need to be forewarned, and that is, a very painful collection of wind in the bowels, which few escape. How and why this happens I cannot say; but the only sure remedy is the introduction into the rectum of a flexible male catheter. And that reminds me of another point: charge your patient not to stand on ceremony when she feels the inclination to break wind. Efforts to withhold it may cause a damaging contraction of the sphincter muscle.

Occasionally, when your patient is fat, or is lying on her back the wind escapes involuntarily, and she will think that she breaks it from the vagina, and will insist upon it that the operation is a failure. This happened not long ago to one of my private patients. It gave her and me much needless anxiety, for when the sutures were cut I found that perfect union had taken place. Here are the shotted sutures which were used in her case. The one beaded by two shot lay next but one to the anus; it is the longest of all, and measures just 3.75 inches. I exhibit it especially to show you how long it is, and how much flesh it must have inclosed in its loop.

Our patient's diet will be restricted to food that produces the least amount of feculent refuse. It will, therefore, exclude milk, and consist of toast, eggs, rice, broths, soups, and beef-tea. At the end of three full days an aperient will be given; my favorites are a dessertspoonful of castor-oil or two drams of Epsom salts, administered every four hours until the bowels are moved. On the eighth day, the aperient is repeated, and, after it has acted thoroughly and the bowels have quieted down, all the stitches are removed.

REPORT ON SURGERY.

BY J. H. CUTLER, M. D., OF PETERBOROUGH.

Mr. President and Fellows:

In performing the duty assigned me on this occasion, I have chosen to follow out the literal wording of the subject, and make simply "a report on surgery" from my own observations. I am not able to set forth any new truths for your consideration, but simply to tell the old story of my experience, that possibly we may gain some practical points by comparing notes with each other, for he who would set forth his own opinions, embellished with new theories, without any practical illustrations from personal experience, accomplishes but very little good. In short, I am constrained to conclude that the averaged country physician who would avoid rust in surgery, can only do it by carefully following the reports of his more favored fellows who enjoy the advantages of large and populous centers. And how can he succeed otherwise? for while in the practice of medicine he may — charlatan like — apply his arts, mystify, and possibly magnify, the patient's case, prescribe placebo, and await further developments and information; but in surgery the absolute science must be at hand for immediate use. Hence my conclusions, that the country physician is dependent upon the city surgeon for the new and practical ideas in surgery.

I have selected for my report to-day some parts of surgery which pertain to the abdominal cavity. It has been my fortune to assist in four operations where a section of the abdominal walls were required, where ovariotomy had been diagnosed.

The first one was with Dr. Gilman Kimball, of Lowell. The patient was a maiden lady nearly forty-five years old. By occupation she was a teacher, was of a good inherited constitution, and had always enjoyed fairly good health. The only preliminary precautions taken were to have the patient well toned, and perfect cleanliness about the patient and assistants. The section made covered nearly all of the space from the umbilicus to pubis. The tumor proved to be — as diagnosed — a purely cystic, unilocular tumor, weighing about twenty-five pounds, with very few adhesions, and was quite readily removed. The patient made a good recovery, and has since enjoyed good health.

The second case was with Dr. Kimball also. The patient was a married lady about fifty years old, who was the mother of several children. Her constitutional history was fairly good, but her general health had usually been rather slender. At the time of the operation she was fairly well toned. The same precautions were taken as in the former case. Upon completing the section a purely cystic multilocular tumor was found, with some adhesions, measuring some twenty-seven pounds in weight, which was removed without any serious difficulty. The recovery of this patient, on account of her delicacy and slight peritonitis, was somewhat slower than the former one, but she eventually fully recovered her former health, minus her would-be fatal malady.

The third case was with Dr. Bixby, of Boston, and several gentlemen, members of this Society. The patient was a married lady about sixty years old, who had never borne children. Her constitutional history was fairly good, and although rather delicate, she usually enjoyed fairly good health, but for a time previous to the operation her health had been more delicate, and preliminary treatment had failed to tone her system to any great extent. The antiseptic precautions were fully carried out, and on making the section the tumor was found to be of a malignant character, and in consequence the removal abandoned, and the wound closed up. The patient rallied quite well, but after a few weeks died from exhaustion, as a consequence of her condition and the malignancy of the tumor.

The fourth case was with Dr. J. C. Irish, of Lowell. The

patient was a maiden lady thirty-eight years old, a school-teacher by profession. She was a beautiful blonde in complexion, of medium stature and fine physique, but inherited cancer in a marked degree, as her mother and two aunts had died from its direct effects, within a few years. She had also from her youth been troubled with an extremely sensitive stomach. In childhood and during her school days, the thought of a task or lesson would cause her to vomit her breakfast, and as she advanced in years, the thought of her school, of going to church, or of meeting a friend, or any similar disturbance, was quite sure to cause her the loss of her last meal, while she suffered but very little from the usual forms of dyspepsia. This peculiarity was somewhat intensified by the development and growth of her tumor. The diagnosis was, "a multilocular ovarian tumor, with fluctuations distinct, but of such a character as to indicate a good deal of solid material about it." The prognosis was "a promising one for recovery."

The operation was done on Wednesday, the 30th of March last. The preliminary arrangements were complete, and the operation, under antiseptic precautions, was commenced at 12 o'clock M., and completed at thirteen minutes past 1 P. M. The section was nearly nine inches long, and on piercing the tumor with the trocar it was found to be nearly solid, it weighing sixteen pounds with about two pounds of liquid and calloid material. On examining for the pedicle a small ovarian cyst was found attached to the right ovary weighing about one pound, and the main tumor was found to have taken its origin from the body of the uterus, almost entirely investing it, and necessitating, of course, the removal of the organ at the middle of the neck, with both ovaries, the pedicle being cauterized and clamped externally, and the wound closed and dressed with dry lint. The tumor proved to be a fibro-cystic growth with unmistakable signs of malignancy.

The patient rallied well from the operation, and the wound commenced to heal by first intention. She was kept perfectly quiet, and nourished with milk and brandy injections entirely until the third day, when a little milk and lime-water was given by the stomach. This precaution was very carefully taken on

account of her sensitive stomach. On the third day, as the pedicle commenced to slough, it was dressed with iodoform and repeated each two hours. While she suffered a good deal from pain, all the anodyne used was two or three suppositories, and during this time the temperature had only reached one hundred and one, at one time, and the pulse less than one hundred, the bowels being but very little distended.

During the afternoon of the fourth day irritability of the stomach commenced, with some vomiting, which continued to increase. Small doses of calomel were given to counteract it, with no perceptible effect, the opiates being excluded on account of their tendency to sicken and check the secretions, until at noon of the fifth day she died, the vomiting increasing during the interval.

A post-mortem, made a few hours after death, showed that the entire section had nearly healed by first intention without any inflammation, the pedicle had sloughed without sepsis and the bowels had assumed their natural position with very little inflammation, but the stomach was found to be dilated to nearly twice and one half its natural size, which appeared to be the cause of the fatal issue, in consequence of its chronic enlargement and sensitiveness.

I am able from memory and my records to recall fourteen cases of hernia where the knife or manipulation was required for relief. The first case which appears on my records is that of Miss W., a maiden lady some over fifty years of age. Her first trouble was persistent vomiting. Her attending physician failing to detect the cause or relieve the trouble, called his associate, who also failed to diagnose or relieve. After three days' treatment without relief, my preceptor was called, who, after hearing the patient's description of her trouble, at once diagnosed strangulated femoral hernia without an examination, which proved to be correct, the examination showing a tumor the size of a robin's egg, which failed to carry admitted conviction to the minds of the gentlemen in attendance until a section with the knife revealed a dark mahogany-colored knuckle the size of a chestnut, which was undeniable evidence. Her case terminated fatally on the fifth day in consequence of its tardy recognition and relief.

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TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY

AT THE

Ninety-Eighth Annual Session,

HELD AT

CONCORD, JUNE 19 AND 20, 1888.

Concord, N. H.
REPUBLICAN PRESS ASSOCIATION, 22 NORTH MAIN STREET.
1888.

NEW HAMPSHIRE MEDICAL SOCIETY.

OFFICERS OF THE SOCIETY, 1888–'89.

PRESIDENT.

DR. SAMUEL C. WHITTIER, Portsmouth.

VICE-PRESIDENT.

DR. WILLIAM CHILD, New Hampton.

SECRETARY.

DR. G. P. CONN, Concord.

TREASURER.

DR. D. S. ADAMS, Manchester.

EXECUTIVE COMMITTEE.

DR. CHARLES R. WALKER, Concord.
DR. GEORGE D. TOWNE, Manchester.
DR. JOHN R. KIMBALL, Suncook.

ANNIVERSARY CHAIRMAN.

DR. WILLIAM T. SMITH, Hanover.

COUNCIL.

DR. JOHN J. BERRY, Portsmouth.
DR. M. C. LATHROP, Dover.
DR. CHAS. B. NICHOLS, Franklin Falls.
DR. W. O. JUNKINS, Greenland.
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DR. G. W. WEYMOUTH, Grafton.
DR. G. F. MUNSEY, Greenville.
DR. ROBT. BURNS, Plymouth.
DR. C. W. GROSS, Milton Mills.
DR. STEPHEN VITTUM, Laconia.
DR. W. B. PORTER, Walpole.
DR. FRANK T. MOFFETT, Littleton.
DR. F. A. STILLINGS, Concord.
DR. D. P. GOODHUE, Springfield.

DR. H. C. HOLBBOOK, Penacook.
DR. W. H. ALDRICH, Marlborough.
DR. C. B. DRAKE, West Lebanon.
DR. HENRY MARBLE, Gorham.
DR. W. W. WILKINS, Manchester.

CENSORS.

DR. D. S. ADAMS, Manchester.
DR. THOMAS HILAND, Concord.
DR. JOHN W. PARSONS, Portsmouth.
DR. C. B. HAMMOND, Nashua.
DR. G. D. TOWNE, Manchester.
DR. I. J. PROUTY, Keene.
DR. LEONARD JARVIS, Claremont.
DR. J. C. EASTMAN, Hampstead.
DR. C. B. DRAKE, West Lebanon.
DR. M. C. LATHROP, Dover.

Executive Board to Issue Licenses.—D. S. Adams, President; Thomas Hiland, Secretary; John W. Parsons, Associate.

Committee of Arrangements.—Drs. I. A. Watson, Thomas Hiland, A. P. Chesley, H. C. Cummings, and G. M. Kimball, Concord.

Committee on Publication.—Drs. G. P. Conn, Concord; D. S. Adams, Manchester.

[The Publication Committee desire to have it understood that the publication of any paper does not necessarily constitute an endorsement by the society.]

Committee on the History of Medicine in New Hampshire.—Dr. I. A. Watson, Concord; Dr. William Child, New Hampton; Dr. J. W. Parsons. Portsmouth; Dr. William T. Smith, Hanover; Dr. G. P. Conn, Concord. All communications intended for this committee should be addressed to the chairman, Dr. Irving A. Watson.

The next annual meeting of the New Hampshire Medical Society will be held in Concord the third Monday and Tuesday of June, 1889.

All communications intended for the Society should be addressed to the secretary, G. P. Conn, M. D., Concord, N. H.

NEW HAMPSHIRE MEDICAL SOCIETY.

PROCEEDINGS

OF THE

NINETY-EIGHTH ANNUAL SESSION,

TUESDAY, JUNE 19, 1888.

The president and fellows of the Society convened in the hall of the G. A. R., in Concord, at 11 o'clock, A. M.

The convention was called to order by the president, Dr. Samuel W. Roberts, of Wakefield, and the exercises were opened with prayer by the Rev. F. D. Ayer, D. D., of Concord. There was a large attendance.

The president appointed the following committees for the session:

Committee on Reception of Delegates.—Drs. George D. Towne of Manchester, C. R. Walker of Concord, J. H. Wheeler of Dover.

Committee to Examine and Report on Patients.—Drs. M. C. Lathrop of Dover, D. W. Jones of Portsmouth, S. P. Carbee of Haverhill, C. P. Frost of Hanover, A. R. Cummings of Claremont, C. P. Gage of Concord.

Committee to Audit the Treasurer's Account.—Drs. A. P. Chesley and M. W. Russell, of Concord.

The Committee of Arrangements made their report through Dr. Irving A. Watson, chairman. After congratulating the members upon the flattering auspices under which they were assembled, it was announced that dinner would be served at the Eagle hotel at one o'clock, and that the attending physician, Dr. Walker, and matron, Miss Barr, of the Concord hospital,

extended an invitation to the members of the Society to visit that institution at any time that might be convenient to them.

Accepted with thanks.

It was voted that the reading of the records of the last meeting be dispensed with.

The Committee on the Reception of Delegates reported the presence of the following delegates: Prof. F. W. Draper of Boston, Dr. Benj. H. Hartwell of Ayer, delegates from the Massachusetts Medical Society; Dr. G. B. Bullard of Vermont; Dr. George W. McGregor, delegate from the White Mountains Medical Society,—who were introduced by the President.

The report of the Council being in order, it was read by the secretary, as follows:

REPORT OF THE COUNCIL.

CONCORD, Monday evening, June 18, 1888.

The Council met at the office of the Secretary at 8:30 o'clock in the evening. The president being absent, Dr. Nelson, of Laconia, was appointed temporary chairman, and called the meeting to order.

The following members answered to the roll-call: Drs. J. B. Pettengill, Amherst; Herbert C. Cummings, Concord; G. H. Sanborn, Henniker; J. H. Cutler, Peterborough; D. B. Nelson, Laconia; O. D. Eastman, Woodsville; Frank Blaisdell, Goffstown; G. M. Kimball, Concord; W. O. Junkins, Greenland; G. W. Weymouth, Grafton.

The vacancies in the Council were filled from the following members of the Society, who were present: Dr. J. C. Eastman, Hampstead, for Dr. Edward Abbott, Tilton; Dr. D. P. Goodhue, Springfield, for Dr. C. B. Nichols, Franklin Falls; Dr. W. B. Moody, Franconia, for Dr. M. C. Lathrop, Dover; Dr. George Cook, Concord, for Dr. C. W. Tolles, Claremont; Dr. A. P. Richardson, Walpole, for Dr. C. A. Morse, Newmarket; Dr. Irving A. Watson, Concord, for Dr. D. W. Jones, Portsmouth; Dr. F. B. Perkins, Londonderry, for Dr. M. C. Dix, Hinsdale; Dr. Charles R. Walker, Concord, for Dr. J. J. Berry, Portsmouth.

The secretary submitted the following applications for membership, which were duly considered and investigated, and the applicants were unanimously recommended to the Society for

membership: Henry Dodge, M. D., Goffstown; George E. Osgood, East Barrington; F. L. Hawkins, M. D., Meredith; J. F. Merrill, M. D., Scytheville; Henry O. Smith, M. D., Hudson Centre; C. H. Holcombe, M. D., Brookline; F. W. Spaulding, M. D., Epping; Frank E. Brigham, M. D., Salmon Falls; W. H. Aldrich, M. D., Marlborough; A. Noel Smith, M. D., Dover; A. H. Harriman, M. D., Laconia; George W. McGregor, M. D., Littleton; E. W. Hodsdon, M. D., Centre Sandwich.

Dr. Alvah R. Cummings, of Claremont, at his own request, was placed upon the retired list.

Upon motion of Dr. Frank Blaisdell, a committee of three was constituted for the revision of the By-Laws. And upon motion of Dr. G. P. Conn, the Committee on the History of the Society, consisting of Dr. Watson of Concord, Dr. Childs of New Hampton, Dr. Parsons of Portsmouth, and Dr. Smith of Hanover, were appointed as Committee for the Revision of the By-Laws.

The resolutions lying upon the table from the last meeting, relative to the preparation of papers presented to the Society and the admission of new members, introduced by Dr. Nichols and Dr. Adams, were taken from the table, and referred to the Committee on the History of the Society.

Dr. Watson, of Concord, chairman of the Committee on the History of the Society, reported progress. He said that during the past year he had spent a large amount of time and labor in gathering material, mostly biographical in its character; that a great deal more labor would be required in order to make the History as complete and accurate as it should be. He said that it was very difficult, frequently, to trace the history of some physicians who were even prominent in the state during their lives.

A copy of Resolutions adopted by the State Medical Society of Arkansas, with reference to the endorsement of charlatans by the religious press throughout the country, was received from that society; and upon motion of Dr. Conn, of Concord, the resolutions were endorsed, and the Secretary was directed to communicate the endorsement to the Medical Society of Arkansas.

A communication from the publisher of the "Index Medicus" was referred to the Committee on the State Library, with a recommendation that they purchase the work.

On motion of Dr. Conn, of Concord, the chairman of the Committee on the History of the Society was appointed to represent the Society at Amesbury, Mass., on the fourth day of July, at the dedication of a monument to Josiah Bartlett, founder and first president of the Society, and first governor of this state.

The Secretary called the attention of the Council to an advertisement in a newspaper for the sale, by Dr. W. P. Blake, of Farmington, a member of this Society, of a medicine called "Sanitine." The matter was referred to a committee consisting of Drs. Geo. Cook of Concord, Sanborn of Henniker, and Walker of Concord.

Upon motion of Dr. Cook, of Concord, the matter of the change of the programme was referred to the Executive Committee.

The report of the Council was accepted and adopted; and the applicants for membership therein recommended were elected members of this Society.

At twelve o'clock the President, Dr. S. W. Roberts, of Wakefield, delivered the annual address, which was referred to the Committee on Publication.

Dr. J. J. Berry, of Portsmouth, delivered an oration upon "Auto Infection."

The Society then adjourned until three o'clock P. M., in order to attend the anniversary dinner at the Eagle hotel.

The anniversary chairman, Dr. George Cook, of Concord, presided, and *post prandial* exercises were as follows:

"The New Hampshire Medical Society"—President Dr. Roberts, Wakefield.

"The State of New Hampshire"—Hon. A. B. Thompson, Concord.

"The Massachusetts Medical Society"—Prof. F. W. Draper, Boston.

"The Concord General Hospital"—Hon. S. C. Eastman, Concord.

"The Country Physician"—Dr. Wm. Child, New Hampton.

"The Clergy"—Rev. Dr. Ayer, Concord.

AFTERNOON SESSION.

Called to order at three P. M., the President in the chair.

Dr. Parsons, of Portsmouth, opened the discussion upon the oration on "Auto Infection," by Dr. Berry, after which Dr. F. A. Stillings, of Concord, read a report on surgery, which was discussed by Dr. Russell of Concord, Dr. Adams of Manchester, and Dr. Lathrop of Dover.

Dr. D. S. Adams, of Manchester, delivered an oration on the "Influences of Alcoholism on Surgical Injuries, Treatment, etc.," which was discussed by Dr. Child of New Hampton, Dr. Whittier of Portsmouth, and Dr. Roberts of Wakefield.

Dr. Frank Blaisdell, of Goffstown, read a paper on "Milk," which was discussed by Dr. Watson of Concord, Dr. Gross of Milton Mills, Dr. Hill of Dover, Dr. Blaisdell of Contoocook, Dr. P. A. Stackpole of Dover, Dr. Adams of Manchester, and Dr. Lathrop of Dover.

Dr. I. A. Watson, of Concord, read a paper on the "Extent and Distribution of Consumption in New Hampshire," which was discussed by Dr. Hiland of Concord, Dr. Conn of Concord, Dr. Lathrop of Dover, Dr. Roberts of Wakefield, and Dr. Stackpole of Dover.

Dr. M. C. Lathrop, of Dover, made a report on "Therapeutics: How are Drugs Medicinal?"

Dr. P. A. Stackpole read a paper entitled "Medicine *versus* Nature."

The Society then adjourned until Wednesday morning at 8 o'clock A. M.

MORNING SESSION.

WEDNESDAY, June 20, 1888.

Called to order at 8 o'clock A. M., the President in the chair.

The discussion upon the paper of Dr. Stackpole was opened by Dr. Hill of Dover, followed by Dr. Child of New Hamp-

ton and Dr. Wheeler of Pittsfield. All the foregoing papers and discussions were referred to the Committee on Publication.

Reports of delegates being in order, Dr. M. H. Felt, of Hillsborough Bridge, submitted the following report of the delegates to Dartmouth Medical College:

To the New Hampshire Medical Society:

Your delegates, with Drs. D. F. Rugg and F. H. Cilley from the Vermont Medical Society, arrived at Hanover, according to appointment, on the afternoon of November 21st. With little delay, accompanied by Prof. Frost, we proceeded to the Medical College, where we found twenty-nine embryonic M. Ds. of fine personnel awaiting our arrival, having previously, with two or three exceptions, passed written examinations in all the departments and been ranked by their respective professors.

The dread ordeal of passing singly and privately a final and oral examination in the presence of four august delegates who were growing gray or bald in the "Wilderness of Powders and Pills" was, as we distinctly remember, sufficient cause for quaking, and there were but few of the class who showed no sign of trepidation on entering our presence. With so large a number, our time limited, your delegates could devote but a few minutes to each; but with a very large majority more time was unnecessary to convince us that the instruction by the faculty had been thorough and practical, and the opportunities improved by the students. In fact, your delegates often had occasion mentally to congratulate themselves that they were the quizzers and not the quizzed. We endeavored by our examination to satisfy ourselves of the practical knowledge of the student where answers were, as a rule, prompt, decided, and correct, giving us full confidence in their skill and ability to practice the healing art. In the judgment of your delegates, concurring with those from Vermont, three candidates failed to exhibit suitable and sufficient qualifications for the practice of medicine.

The graduating exercises held in the college church on the evening of the 22d, in the presence of a large and no doubt appreciative audience, were exceedingly interesting, and at the close, as we set our faces homeward, the conviction came to us strong that it is ever an honor to be an alumnus of "Old Dartmouth."

W. S. LEONARD, M. D.,
M. H. FELT, M. D.,
Delegates from N. H. Medical Society.

Reports of District Societies were read by their titles, and submitted for publication, and will be found published with the other reports.

The report of the Committee on Necrology was submitted by Dr. John J. Berry, of Portsmouth, and ordered to be published.

The report of the Board of Censors was submitted by Dr. Thomas Hiland, of Concord, and referred to the Publishing Committee. It was as follows:

HONORABLE COUNCIL, NEW HAMPSHIRE MEDICAL SOCIETY:

Gentlemen: The Board of Censors of the New Hampshire Medical Society has the honor to report that the following named gentlemen have been granted licenses to practice medicine, surgery, and obstetrics in this state:

Date.	Name.	Residence.	Graduated at.	Year.	Granted by.
1887.					
June 21	Frederick Fletcher	Bradford	Dartmouth	1870	Cook.
June 21	Stephen Vittum	Laconia	Dartmouth	1883	Cook.
June 21	Geo. W. Lougee	Freedom	Bowdoin, Me.	1883	Cook.
June 21	Melvin A. Harriman	Ossipee	Bowdoin, Me.	1879	Cook.
June 21	N. Harvey Scott	Wolfeborough	Bowdoin, Me.	1874	Cook.
June 21	Wm. R. Garland	Campton	Dartmouth	1885	Cook.
June 25	Martin H. Tierney	Nashua	University of N. Y.	1885	Adams.
June 25	Avery M. Foster	Candia	Bowdoin, Me.	1875	Adams.
July 1	Roscoe Hill	Epsom	Bellevue, N. Y.	1882	Hiland.
Aug. 18	Henry Dodge	Goffstown	University of Vt.	1887	Adams.
Sept. 19	Wm. H. Fox	Washington, D. C.	Columbian Univ., D.C.	1884	Hiland.
Oct. 13	Henry Onslow Smith	Hudson	Bellevue, N. Y.	1887	Adams.
Oct. 25	Levi W. Clough.	Contoocook	University of Vt.	1887	Hiland.
Oct. 31	Charles Newcomb	No. Haverhill	University of Vt.	1880	Hiland.
Dec. 10	Harry H. Stackpole	Dover	Dartmouth	1887	Adams.
Dec. 12	Wm. P. Watson	Dover	Bellevue, N. Y.	1879	Adams.
Dec. 21	Charles D. Jones	Milton	Harvard, Mass.	1885	Parsons.
Dec. 22	Harvey E. Center	Manchester	University of Vt.	1886	Adams.
Dec. 24	H M. Guild	Claremont	Dartmouth	1887	Hiland.
Dec. 24	L. Roch Perrault	Franklin	Laval Univ., Montreal	1887	Hiland.
1888.					
Jan. 6	John P. Merrill	New London	University of Vt.	1886	Hiland.
Feb. 8	Horace L. Watson	Plainfield	University of Vt.	1887	Hiland.
Feb. 10	John L. Burnham	Manchester	Dartmouth	1887	Adams.
Feb. 25	Jonathan M. Cheney	Rochester	University of Vt.	1887	Parsons.
Feb. 29	Frank I. Ramos	West Stewartstown	University of N. Y.	1885	Adams.
Mch. 23	Augustus W. Shea	Nashua	University of Vt.	1887	Adams.
April 9	Prentiss B. Young	Gilmanton I Works	University of N. Y.	1888	Parsons.
May 16	Horace G. Théviault.	Laconia	Laval Univ., Montreal	1888	Hiland.
May 18	J. D. O'Doherty	Dover	Georgetown Un., D.C.	1888	Adams.
May 21	Frank E. Kittredge	Centre Harbor	University of Pa.	1885	Hiland.
May 24	Geo. M. Atwood	Madison	Bowdoin, Me.	1884	Hiland.
June 19	Wm. E. Maloney	Keene	University of Vt.	1887	Hiland.

Very respectfully, your ob't servant,

T. HILAND,

Secretary of Board of Censors.

Concord, N. H., June 19, 1888.

The following report of a case of chronic hydrocephalus, by Dr. J. S. Richmond, of Windsor, Vt., was read by the secretary:

The child weighed 54 pounds. It was estimated that the head would weigh 44 or 45 pounds, and the body and limbs 9 or 10 pounds. Age, 2 years and 4 months. Measurements: Circumference of head, 42 inches (3′–6″); distance from top of head to top of ears, 27½ inches; from nape of neck over the longitudinal seams to root of nose, 40 inches (3′–4″); from external canthus of eye to upper edge of frontal bone, measuring towards anterior fontanelli, 7 inches; to top of head 12 inches; from occiput to top of occipital bone, 15½ inches; from one parietal bone to its fellow, 10 inches.

Length of child, 32 inches; from knee to external maleolus, 5½ inches; humerus, 5½ inches; forearm, 5½ inches; around calf of leg 5 inches; ankle, 4 inches; instep, 4 inches; above the hips, circumference 15 inches. General appearance: Eyes large and protruding, but partly covered by lower lid being pulled up; seems bright, and notices what is going on around him; will play, laugh, and say some words.

It is regretted that we cannot furnish the Society with an illustration.

The report was accepted, and the following resolution was adopted:

Resolved, That the thanks of the Society be expressed by the secretary to Dr. Richmond for the interesting report which he has sent to this association.

On motion of Dr. Whittier, of Portsmouth, it was voted to pay the secretary the sum of fifty dollars and the treasurer the sum of twenty-five dollars for their services the past year.

The special order for the election of officers came up at 9 o'clock, and the following officers were elected:

PRESIDENT.

DR. SAMUEL C. WHITTIER, Portsmouth.

VICE-PRESIDENT.

DR. WILLIAM CHILD, New Hampton.

TREASURER.

DR. DANIEL S. ADAMS, Manchester.

SECRETARY.

DR. GRANVILLE P. CONN, Concord.

EXECUTIVE COMMITTEE.

DR. CHARLES R. WALKER, Concord.
DR. GEORGE D. TOWNE, Manchester.
DR. JOHN R. KIMBALL, Suncook.

The Executive Committee, through the chairman, Dr. Walker, made the following report of members of the Council, Board of Censors, and Committee of Arrangements, together with the delegates to Dartmouth Medical College and other state societies; also a programme for the next annual meeting—all of which was accepted, and the committee continued.

ANNIVERSARY CHAIRMAN.

DR. WILLIAM T. SMITH, Hanover.

COUNCIL.

DR. J. J. BERRY, Portsmouth.
DR. M. C. LATHROP, Dover.
DR. C. B. NICHOLS, Franklin Falls.
DR. W. O. JUNKINS, Greenland.
DR. G. M. KIMBALL, Concord.
DR. A. P. CHESLEY, Concord.
DR. G. W. WEYMOUTH, Grafton.
DR. G. F. MUNSEY, Greenville.
DR. ROBT. BURNS, Plymouth.
DR. C. W. GROSS, Milton Mills.
DR. STEPHEN VITTUM, Laconia.
DR. W. B. PORTER, Walpole.
DR. FRANK T. MOFFETT, Littleton.
DR. F. A. STILLINGS, Concord.
DR. D. P. GOODHUE, Springfield.
DR. H. C. HOLBROOK, Penacook.
DR. W. H. ALDRICH, Marlborough.
DR. C. B. DRAKE, West Lebanon.
DR. HENRY MARBLE, Gorham.
DR. W. W. WILKINS, Manchester.

CENSORS.

Dr. D. S. ADAMS, Manchester.
Dr. THOMAS HILAND, Concord.
Dr. JOHN W. PARSONS, Portsmouth.
Dr. C. B. HAMMOND, Nashua.
Dr. GEO. D. TOWNE, Manchester.
Dr. I. J. PROUTY, Keene.
Dr. LEONARD JARVIS, Claremont.
Dr. J. C. EASTMAN, Hampstead.
Dr. C. B. DRAKE, West Lebanon.
Dr. M. C. LATHROP, Dover.

DELEGATES.

Maine.—Drs. D. T. P. Chamberlain and Charles A. Fairbanks of Dover.

Vermont.—Drs. I. G. Anthoine of Antrim and Frank Blaisdell of Goffstown.

Massachusetts —Drs. Edward French of Concord and David M. Currier of Newport.

Rhode Island.—Drs. Bradford Allen of Nashua and H. S. Hutchinson of Milford.

Connecticut.—Drs. A. E. Emery of Penacook and G. H. Larabee of Suncook.

American Medical Association.— *Voted*, That the Executive Committee and Secretary fill our delegation from such members as shall volunteer to represent the Society.

N. B. The next meeting of the American Medical Association will be held the first week in June, 1889, in the city of Newport, R. I., and any member of the Society who desires to represent the N. H. Medical Society should forward his application to the secretary at once, in order that it may be placed on file for the Executive Committee.

This Society is entitled to twenty delegates.

Delegates to Dartmouth Medical College.—Drs. M. H. Felt of Hillsborough Bridge and E. E. Graves of Boscawen.

Committee of Arrangements.—Drs. I. A. Watson, Thomas Hiland, George Cook, H. C. Cummings, and George M. Kimball, Concord.

The following programme was submitted for the next annual meeting:

ORATORS.

DR. ROBT. BURNS, Plymouth.
DR. A. P. CHESLEY, Concord.

SUBSTITUTES.

DR. CHARLES W. GROSS, Milton Mills.
DR. THOMAS HILAND, Concord.

DISSERTATIONS.

DR. FRANK T. MOFFETT, Littleton.
DR. W. B. PORTER, Walpole.

REPORTS.

On Surgery, Dr. M. W. Russell, Concord.
On Pathology, Dr. H. T. Boutwell, Manchester.
On Necrology, Dr. J. J. Berry, Portsmouth.

The Executive Committee subsequently reported the following order of business for the next annual meeting, as the matter of time and place of meeting, as well as the order of business, had been referred to them by the Council and accepted by the Society:

Annual meeting to be held in Concord the third week in June, 1889. The Committee of Arrangements to provide for the following order of exercises:

Meeting to be called the third Monday in June, at 11 o'clock A. M.

11 A. M.	The reading of papers, with discussions.
1 P. M.	Recess for dinner, and for time to visit City Hospital and Asylum for the Insane.
3:30 P. M.	Reading of papers to be resumed.
6 P. M.	Adjournment to 8:30 A. M., Tuesday.
7:30 P. M.	Meeting of the Council.
8:30 P. M.	Reception to the members and their ladies.

TUESDAY.

8:30 A. M.	Called to order, and Council to report.
9 A. M.	Reading of papers to be resumed.
11 A. M.	Election of officers, and general business.
12 M.	President's Address.
1 P. M.	Anniversary dinner.

The Executive Committee submit the following resolution:

Resolved, That members limit their papers so that they may be read in twenty minutes.

Dr. S. W. Roberts, president, then addressed the meeting as follows:

"This, gentlemen, ends my duties as president. I thank you for your forbearance and for your kind attention; and I shall leave this place feeling very happy to introduce as my successor one who is far more able than your humble servant to occupy this chair,—Dr. Samuel C. Whittier, of Portsmouth."

Dr. Whittier took the chair amid applause, and spoke as follows:

"Gentlemen: This is a very flattering reception. I am very much obliged to you. I do not know that I can say anything in promise of what may come during the time I shall have the honor to occupy this chair, but I say this much, that I will do for you the best I can for the interest of the Society, and hope that by your kind indulgence any mistakes on my part may be overlooked; and I thank you very sincerely for the honor.

On motion of Dr. Adams, it was

Resolved, That we tender a cordial vote of thanks to Dr. Roberts for the promptness with which he has been here at the commencement of every session, and for the efficient and able manner in which he has presided over this Society.

The treasurer, Dr. Daniel S. Adams, of Manchester, submitted the following report, which was accepted:

TREASURER'S REPORT.

1887.			Dr.
June 21.	To cash on hand . . .	$612.17	
22.	To dues at annual meeting .	198.00	
22.	To fees at annual meeting .	80.00	
22.	To fees for re-instatement of T. S. Foster	5.00	
22.	To cash from Conn—fee of J. J. Berry, '86	5.00	
22.	To cash from L. G. Hill, Censor	5.00	
22.	To cash from Geo. Cook, Censor	8.00	

June 22.	To cash from D. S. Adams, Censor	$14.00	
22.	To dues since last meeting .	128.00	
			$1,055.17

1887.			Cr.
June 21.	By cash paid G. P. Conn, as per bill	$35.45	
21.	By cash paid G. P. Conn, services as Secretary	50.00	
21.	By cash paid D. S. Adams, services as Treasurer . .	25.00	
22.	By cash paid L. G. Hill, expenses as Censor	2.00	
22.	By cash paid Geo. Cook, expenses as Censor	9.00	
22.	By cash paid D. S. Adams, expenses as Censor . . .	13.00	
July 22.	By cash paid Committee of Arrangements, balance . .	2.50	
Dec. 29.	By cash paid John B. Clarke, printing Transactions . .	205.25	
29.	By cash paid messenger service, etc., for printing . . .	4.20	
1888.			
May 31.	By cash paid John B. Clarke for receipt-book	2.00	
31.	By cash paid for postage, paper, etc.	6.00	
			$354.40
	Cash on hand		700.77
			$1,055.17

We find the accounts of the Treasurer correctly cast.

MOSES W. RUSSELL,
T. HILAND,
Auditors.

Concord, N. H., June 20, 1888.

It was voted that Dr. Whittier, of Portsmouth, be associated with Dr. Parsons, at Portsmouth, to get a duplicate bank book of the Bartlett Fund, which is on deposit in the savings-bank

in Portsmouth, who submits the following report of the Treasurer:

1846. July 10, Josiah Bartlett deposited in the name of the New Hampshire Medical Society, $201.50; this amounted to	$592.98
June 28, 1865, when . . . . . was withdrawn by Thomas Wheat.	125.00
	$467.98
Dividends and extra dividends to July 1, 1888 .	1,325.61
Total	$1,793.59

Memo. from letter from Thomas Wheat, Treas., March 18, 1865. "Not to be withdrawn except by the proper officers of the Society." The deposit-book has not been presented at the bank since 1869, and, so far as I know, not since the above memo. was made.

A. C. HOYT,
Teller of the Portsmouth Savings Bank.

On motion of Dr. Stackpole, it was voted to substitute for the name of Dr. Lathrop as Councillor the name of Dr. James H. Wheeler.

On motion of Dr. Adams, of Manchester, it was voted to refer the question of the place of holding the next annual meeting to the Executive Committee, for them to make any changes that they see fit, with power to act. (See Report of Executive Committee, p. 15.)

No further business being presented, the Society adjourned until the third Monday and Tuesday in June, 1889, when the Association will meet in Concord according to the report of the Executive Committee.

Respectfully submitted,

GRANVILLE P. CONN,
Secretary.

PRESIDENT'S ADDRESS.

BY SAMUEL W. ROBERTS, M. D., OF WAKEFIELD.

Fellows of the New Hampshire Medical Society:

Could we, from some prominent height, look out upon the ocean all disturbed, and plainly see, struggling there amid the currents and counter-currents, amid the waves rolling "mountain high" and lashed into fury by the uncaged, wild, frenzied tenants of Æolus, the vessel on whose success in outriding the tempest and safely coming to port depend many of our highest interests, under even the most favorable view we could take of the situation we should have a deep solicitude, an intense anxiety; and yet, knowing that our craft was constructed of the very best material obtainable for such a purpose, and in the most perfect and scientific manner possible, and with a view of meeting all emergencies ever known to arise, that it had for a master and subordinates those who thoroughly understood their business and were a conscientious unit in the discharge of every duty, we could compose ourselves with a measure of quiet content.

Giving now all due consideration to the manner in which the gray hair looks upon the customs, habits, and institutions of youth and early manhood, and making all due allowance for the comparison it is prone to make of them with those of its time, and being especially desirous of taking an impartial view of the present situation, and, moreover, being unwilling to abate an iota from a fair estimate of the advance of science in all directions during the last half century, nevertheless we are compelled to look upon the old ship of medicine as in quite

as much danger of being wrecked by the adverse winds, blowing at times so furiously, or by the shoals, reefs, and quicksands which lie beneath a calm, serene, apparently secure, and hitherto untried surface, as at any time during that period. And by as much as the old craft fails of perfection in its construction and management, by so much do the highest and best interests of the community suffer.

It will be our object, then, briefly to allude to a few of the things which are enemies to the profession and in the way of real progress—their origin and remedy.

From the Great Physician we learn "that a man's foes shall be they of his own household." This precept of our Saviour is as true when collectively as when individually applied. Let the individual, the family, or society be correct in their purposes and habits, and it forms a fortress which no outside foe can even mar, much less penetrate.

Most of us look upon the homœopath as an enemy to our profession and to the progress of medicine, and such he is; and all the more contemptible, because practising under a cloak of deceit. For real homœopathy, so far as the use of drugs is concerned, can have about as much power for the removal of disease as an ounce of fertilizer to enrich the Atlantic ocean, or a cubic inch of sulphuretted hydrogen a thousand-acre prairie. But when we, in that numerous class of diseases which in their management require very little, if any, medicine,—diseases which have their origin in errors in diet or the pernicious habits of life (for the human family, especially the more cultivated portions of it, come about as near obeying the simple laws of their nature as would a shad to leap from his aquatic home, and try to ascend an oiled liberty pole, tail up, with a hot loaf of bread in his mouth),—have for more than a score of centuries drugged and dosed, dosed and drugged to death, even, at times, how far, in view of this fact, need we go from home to find the origin of this nonsensical reaction, or the aliment on which it continues to live?

The specialists in medicine have been described by some eminent general practitioners as a gang of thieves, meeting together after their individual raids on the profession and dividing the booty, thus, perhaps, showing a *just* as well as *strong*

abhorrence of the specialist. Yet would it not be difficult to find a general practitioner, of any note or experience, who had not some specialty? And when all those who claim to be general practitioners shall cease to find the "bottom facts" in the diseases of the female, in the uterus or its appendages, ere they throw the club or stone at the specialist, in how much danger, pray, would the eye, the ear, or the lung doctor be of a *severe* bruising? And we should say the degree of comeliness or sense of the physician's being immovably attached to the former or the latter organs is vastly in favor of the latter. And when we are running the profession on the bicycle, the microscope constituting the one and the thermometer the other wheel, who shall say whether the specialist has absorbed the regular, or the regular the specialist?

But the abhorred of all the abhorred of our enemies is the empyric or quack. He is the ghost which haunts our nightly visions, the poisonous fly which enters all our professional food. Well, when our daily business shall have for a foundation common-sense and scientific attainments, this opprobrium of medicine will certainly die from inanition.

And if the profession would be rid of the annoyance and sometimes deleterious results of the various forms of mind-cure, then let it study the more thoroughly the relation of the immaterial with the material when combined, the great influence the former always has over the latter, and understand that very often the immaterial, the mind, is the only channel through which the *débris* of disease can be floated off; and then this really useful remedial means need not be caught up by the not always ignorant or superstitious as a specialty and the *only* means of cure.

Another, and to our view *the*, danger to the profession is the great readiness with which we accept the new and reject the old. Theory after theory do we follow, which like the meteor may go dazzling through the air, its trail even being lost ere it bursts and its fragments forever disappear, without one well authenticated fact to establish its reality, to the rejection of what has been proved as true. May not this be the siren voice to decoy us into strange paths, and to lead us over a calm and apparently secure surface into hitherto unknown and inextrica-

ble difficulties? The conservative and progressive should go hand in hand together, to make any real progress in science. For while there can be no use for conservatism unless by progression something new is discovered, so progression can be of no service unless its results are garnered up by conservatism.

Yet in comparing the authorities in therapeutics of the present day with those of half a century since, we see there has been in theory, and practice, too, largely a revolution;—so much so, that we are led seriously to inquire whether our fathers in medicine, among whom were to be found some of the most talented men of their time, were, from Hippocrates down to the last fifty years, groping as in the dark, and have left nothing on record as worthy of our attention or imitation. And we will let the greater mortality in all acute diseases, especially pneumonia, answer whether the almost complete abandonment of the practice of our fathers has been for the greater good of our patients. But some of the new-born theories as to the ætiology of a class of diseases may be proved to be correct; but with our dim vision it is difficult to see what benefit can result from it in treating that class of diseases. For to remove the cause, to destroy the germ which has the power and vitality to work through feet of solid earth and through brick and iron casings, it may be to deposit its ovum in the cadaver, and the fruit of this ovum, after making its home there for centuries, having the power and vitality to work through all these coverings to the surface, poison the grass that grows there, poison the sheep that eat the grass, poison the man who eats the sheep, we should have to treat it as Samson did the foxes, to spoil his enemies' corn.

As the commanders will lose the confidence and respect of the common soldiers, through whom, after all, the battle is to be fought, if frequent changes of front are made, and especially if those commanders frequently quarrel with each other, so shall we lose the confidence and respect of the community, which we must have to press onward and upward, if we pursue a like course.

We will now be permitted to advance a few suggestions on what has already been largely indicated.

THE REMEDY.

"When I consider Thy heavens, the work of Thy fingers, the moon and the stars which Thou hast ordained, what *is* man that Thou art mindful of *him?*"—a question as full of interest and thought, and about as difficult to answer, now as when asked. What is that being, so wonderful, so beautiful and important, the climax of all creation, and for whose development and comfort all the forces of nature conspire, that He, by whose almighty fiat boundless space was filled with the shining orbs and they set in their eternal courses, should turn His attention from all these to one hundred and fifty pounds of vitalized humanity enclosed by a human skin? What is that being who has been the wonder, admiration, theme, and song of all the intelligences, terrestrial and celestial, since his advent to existence? Echo still asks, What? But whatever this being is, however great, important, and incomprehensible his origin, capabilities, and destiny, it is the business of the physician to restore his physical and mental machinery to its normal condition, when it gets to running in outside or unnatural grooves. A responsible position his! None more so. An important position his! None more so. A useful position his! Is any more so? No place here for tomtits and Lilliputians, for the unlettered and unprincipled, for the debauched, the superstitious, or the fanatic. This is a field so extensive, so shrouded in mysteries, so intricate and difficult, that partially only can it be cultivated by the well developed, highest order of intellect, and the conscientious, full devotion of a long life. The perfect physician, a vast distance from whom the very best of us must necessarily be, is one who fully understands what health is, the line of demarcation between this and disease, the cause, nature, and extent of disease, and the best means for its mitigation or removal.

While perfection, or any very near approach to it, may not in our imperfect state be expected, it is what all, in whatever position, should strive for; and all should remember that, of itself a very big thing, it is made up of a great many little things, and that to be great in it we must be great in these little things. Hence a very few suggestions of what will make

the old craft of medicine the more perfect in its make-up and management.

Our first suggestion is, that, as a whole, the preliminary education of the physician should be much higher than it now is. We would not make a diploma from any literary institution the *sine qua non* for this, not even the A. B.; for we happen to know something of the uncertainty of this affix to one's name. The professor of chemistry in our own beloved college said of a man in the class of '51, that he did not make an intelligent guess all Senior year, but who got his A. B. nevertheless. Nor will we fully specify in what respects there should be an improvement here. But, to say the least, has not the time fully come that the English language, when used by our profession in oral conversation, in testimony in courts, in papers for medical societies, in communications for medical journals, and to an extent in our text-books and lectures before the medical classes, should, if not actually murdered, not be left much in the condition the cow was, which by the locomotive had been knocked over the stone wall, pig-pen, and brick-kiln. She was reported as not killed, not murdered, but terribly mangled, sadly disjointed, and quite disheartened. To correct this and other evils arising from insufficient preliminary education, we should have by a national code an examining-board established in every state in the Union, and make it a penal offence for any physician or school to admit any one as student who did not produce a certificate from such a board as being duly qualified to enter upon the study of medicine. With such a foundation, the superstructure would be all the more perfect, and hence more efficient.

Of the medical education of the present day, of the instruction of our schools, we wish to say but little, preferring rather to commend than to censure. It is thought, however, that one or more additional chairs should be established in all our schools, as so much disease results from errors in diet and from the vicious habits of life. It is feared, too, that the money-making mania of our time has so taken possession of many of our schools as to produce a rivalry not always healthy, and an ambition to grind out not the how good, but the how many, doctors. Certainly, had we some of the attributes of the Al-

mighty, the ability to discriminate between the good, the bad, and the indifferent in our materia medica and our medical literature, we would do to the two latter what He once did to the human race, even though there were, as in that instance, as comparatively few righteous left.

Fellows and Gentlemen, when commencing to prepare for my present position,—a position honorable to any man, a position which properly to fill no one could have greater misgivings than myself, and for my elevation to which my most profound acknowledgments are due,—I surely felt myself in the condition of one, unskilled in the art of swimming, suddenly and unexpectedly thrown into water very much beyond his depth, and dependent wholly upon his own resources to reach safe footing. If the gravity of the situation is reflected upon, trepidation and fright are quite sure to be induced, and the unfortunate one soon finds a watery grave. These not being induced, however, by reflecting on the dangers of the situation, the deep water would aid very much in gaining *terra firma*. I took advantage of the situation, and with all my might pulled for the shore, *alias* the last sentence in this paper. And with just a word to the younger and older members of this Association—and if these words get beyond these walls, the profession as well—the result of that effort will be before you.

Be not hasty, young gentlemen, to believe that comparatively recent experiments have, like the bright noonday sun after a long and dismal storm, revealed the bottom facts in medicine. Rather, remember that history repeats itself; and alas! it is historic of frail humanity never to remain stationary between the extremes, where is the dead level of truth. Then you know,—

> "All the windy ways of men
> Are but dust that riseth up
> To be lightly laid again."

Be not all conservative, nor all progressive. Both are absolutely essential to any healthy development. Rather, "stand in the way, and see, and ask for the old paths, where is the good way, and walk therein."

For the old, the past, by-paths are the only ones which have

been proved such, and the old good and true paths the only ones for present guidance, sending their light forward into the unexplored future.

And you, brethren, contemporaneous with myself, or more advanced in years,—you who have devoted a long life to the relief of suffering humanity, making more and greater sacrifices in doing this than any other class, whatever their calling, and doing it all with a conscience void of offence towards God and towards man, as much as could be consistent with imperfect humanity,—will not your sun, like what we have seen from our paternal residence on a clear, calm October eve, descending behind the western hills, throwing its columns of rays backward and heavenward, spreading its golden streams across our beautiful lake, lighting up on its numerous isles the various tints of autumn, and illuminating as with golden candles the residences along its eastern shore, reminding one of the mountains about the Holy City, of the sea of glass, the golden streets, and the smiles of the "Great Spirit,"—will not, I say, your sun, like this, be most glorious in its setting? And thus going from earthly view, will it not leave the blessed assurance that ere long, on the bright resurrection morn, it will rise again in splendor perfect, with no spots to mar its surface, with no dark, damp, chilling, dismal cloud ever to obstruct its invigorating beams, ever receiving, ever reflecting the rays from the Sun of Righteousness, and never, never, never more to set?

AUTO-INFECTION.

BY J. J. BERRY, M. D., OF PORTSMOUTH.

Excretion, which is partly a chemical and partly a physiological act, serves to maintain the equilibrium of the vital processes. When not impaired, the health of the individual is a self-evident fact; when interrupted, disease is indicated. In other words, impaired secretion and deranged function are dependent one upon the other.

I desire, with your permission, to consider from a clinical standpoint the relations which faulty elimination bears to disease. The subject involves little else than a consideration of physiological problems and pathological conditions which are not yet fully understood. Yet so greatly do these phenomena concern the scientific treatment of disease, that I venture to advance the topic for discussion, being content, however, to present what are in great part the opinions of others. For the sake of brevity, they may be embodied in these two propositions: First, there are present in the tissues and secretions certain toxic substances, the products of vital action; second, these substances may directly produce disease, or modify that already existing.

I shall not discuss in the present paper those products known as ptomaines, which arise from decomposition outside the body, but shall treat only of those originating within as the result of chemical or other action.

It has recently been shown, that through the decomposition set up in the albuminous elements of the tissues, there are produced alkaloids which are at first but slightly toxic, but which

gradually attain a high degree of virulency. After a time this action becomes less apparent, and finally disappears. The experiments of Gautier,[1] Brieger,[2] and others led them to the conclusion that "during the putrefaction of nitrogenous material there are found organic bases, fixed or volatile, presenting, by their chemical and physiological properties, the closest similitude to vegetable alkaloids." The exact way in which this conversion takes place is not known. The germ theory at one time explained it, but it will not at the present day; for, while it is admitted that certain diseases may originate through germs, there is now cause for according bacteria only a secondary place in many of the processes of disease and decay, and for this reason: Nothnagel, Bastian, Hillier, Sternberg, and others have shown, (1) that organisms are found in the blood and secretions of healthy persons; (2) that a fatal septicaemia may be produced by the injection of sterilized fluids; and (3) that micro-organisms are most numerous in septic substances after the period of their greatest toxicity has passed. In other words, these bodies may be the product of chemical changes, or, as Burdon Sanderson expresses it, "Bacterial life is a middle term between chemical antecedents and consequents." Gautier and others have proven, moreover, that the so-called "extractives," which are thrown off by all the excreting organs, are azotized substances which possess a far greater toxic power than the leucomaines themselves. In fact, some have affirmed that they are the sole cause of the poisoning. Brown,[3] as well as Aitken,[4] give a list of the alkaloids which, they state, may be formed by the bacterial decomposition of albumen—the physiological activity of the tissues, or, in some instances, by synthesis. They are found universally. They have a definite and known chemical composition, are exceedingly stable, are obtained by reactions which are identical in origin, and all give up cyanhydric acid, which they state as being one of the most active poisons in existence.

There is no lack of evidence to establish the poisonous properties of the excreta and many of the secretions as well. The

[1] Gautier, "Bulletins de l'Academie de Medicine."
[2] Brieger, "Untersuch. Uber Ptomaine." Berlin, 1886.
[3] Brown, "Animal Alkaloids." London, 1887.
[4] Aitken, "Animal Alkaloids." 1887.

saliva was long since shown by Pasteur to contain poisonous principles. Griffini was able to produce septicaemia by the introduction of sterilized saliva into the blood, while the clinical experience of many observers regarding human bites and those of animals serves to confirm these experiments.

Wurtz lately succeeded in isolating from the expired air both fixed and volatile bases of an exceedingly toxic nature, which, in his opinion, produce the symptoms arising from the breathing of a vitiated atmosphere. Brown-Sequard[1] and D'Arsonval have obtained from the pulmonary exhalations a substance which, when injected into the circulation, caused, among other symptoms, cerebral anaemia, effusion into the ventricles, and death.

In commenting upon these facts, Wolff[2] is convinced that most of such substances in the circulation, by reason of their volatile character, would most likely find their exit through the lungs.

That the skin excretes various waste products is a physiological fact long since established, but we can now affirm with positiveness that many of them are of a poisonous nature. Foster and others state that an interruption of the functions of the skin is followed by some kind of poisoning. Röhrig[3] has confirmed this opinion by showing that an injection of freshly filtered sweat produced in animals pyrexia and albuminuria.

The liver likewise elaborates various substances of similar character. The variety is even greater, for we not only have the alkaloids and extractives, but the various biliary acids, whose effects are thus described by Legg: "They depress the functions of the spinal cord, impair and lessen the functions of the brain, producing drowsiness, ending in coma, and weaken the circulation by paralyzing the cardiac ganglia." More than this, the liver exerts, also, in an indirect way, a most important influence upon the other excreta, as I shall endeavor to show further on.

It is reasonable to presume that toxic material may be derived, not only from the tissues, but from the intestinal tract during the process of digestion. This may result even from the

[1] "Compt. Rendus Hebdom." 1888, p. 106–168.
[2] Druggist's Circular, April, 1888.
[3] "Jahrb. f. Baln." 1, 2.

normal conversion of albumen, it having been shown by Brunton[1] and Ludvig that peptones, when injected into the blood, destroy its coagulability, and when entering the circulation in large amounts, cause suppression of urine, convulsions, and death. Even the digestive fluids themselves are not innocuous, as Von Bergmann and Angerer[2] have demonstrated that pepsin and trypsin, introduced into the circulation of animals, produced a well marked fever, while Edelberg[3] obtained the same results with a fibrin ferment. Fermentation and allied processes may generate poisonous gases, as, for example, marsh gas from the decomposition of cellulose, nitrogen from the blood or the splitting up of albumen, carbonic acid and hydrogen from acetous or butyric fermentation, and others of less importance and more doubtful origin. These, with the products already noted, are being constantly formed during digestion. Bouchard asserts that the alkaloids formed in the intestine of a healthy man in twenty-four hours would be quite sufficient to kill him were they absorbed and excretion stopped. These facts have been confirmed by other observers, who found in the faeces bacteria and poisons in large quantities.

The greater part of those substances resulting from the growth and repair of the tissues is separated from the blood by the kidneys and voided in the urine. Feltz[4] has announced that normal urine, as well as that of febrile conditions, is poisonous, but that the degree of toxicity is dependent upon the combined amount of the various salts and extractives rather than the variety of the same. Ehrmann[5] found that febrile urine contained noxious agents which healthy urine did not possess. Then followed others who demonstrated various alkaloids, which were increased in pneumonia, typhoid, and various chronic affections. Bouchard has added to the value of these researches by noting that sterilized urine injected into the blood of frogs and rabbits, produced contraction of the pupils, slow respiration, muscular weakness, low temperature, and abolition of reflexes. These facts are sufficient to show that large quantities and a

[1] "Disorders of Digestion."
[2] "Festschr. Würtzburger Univ." 1882.
[3] Arch. F. Exp. Path. und Pharm. Bd. 12.
[4] "La France Medicale." July, 1887.
[5] "Gazette Hebdom." 1887.

great variety of harmful material are normally excreted by the kidneys.

Having thus endeavored to establish the fact that most, if not all, of the excretions possess toxic properties, it remains for me to point out its clinical significance, and show the relation which faulty elimination bears to disease.

During the various processes of repair there is a constant flow of vitiated material from the emunctories of the body. At times they are taxed to their utmost, and it requires but the most insignificant factor to disturb their functions, and thus produce disease. When such a result is once effected, no further cause is required, for the phenomena of the affection develop of their own accord, in proportion to the progressive accumulation of the septic matter in the system. This state of things prevails for a given period, when, if a favorable crisis be reached, the organs of excretion begin to recover their function. There is a copious discharge of effete matter, and convalescence is established. Brunton has stated that the vital processes are much more readily arrested by the accumulation of waste products within the organs of the body than by any want of nutriment of the organs themselves.

There is generally understood to be such a thing as an aseptic fever, a state produced by the absorption of extravasated material, as in fractures and other subcutaneous injuries in which there is no chance for infection. We may also have a similar condition arising from prolonged muscular effort or other forms of exhaustion, in which the *débris* of excessive tissue waste is formed much faster than the excretory organs can dispose of it. Indeed, there is reason to believe that even simple fatigue of a muscle is due to nothing else than the increase of acidity and accumulation of effete matter in its substance.

Welch,[1] in his valuable lectures on fever, has summarized some of the later views regarding its etiology in this way: "The members of this group of pyrogenic substances, if not identical with certain physiological ferments, are readily produced by them, quite independently of bacteria. Some of them are present normally in small amount in the body, and if their elimination is impeded or their formation excessive, there is

[1] "Cartwright Lectures," 1888.

reason to believe that they become efficient causes of fever. They may be produced without the action of bacteria in extravasated blood or abnormal disintegration of tissues, and if absorbed in such a condition are capable of producing fever."

Hösel,[1] in the most elaborate paper of the year, considers the subject from this standpoint wholly, and entertains even more radical theories than do the authors already quoted. His conclusion is, that fever, whether produced by microbes or leucomaines, is the result of intoxication of the nervous system by chemical poisons circulating in the blood, and in every disease attended by fever this symptom should be ascribed to the factors which produce these poisons.

It is easy to understand how pyrexia, when once produced, may be prolonged and intensified; for while the disintegration of albuminoids goes on at a terrific rate, and with a corresponding increase of the various forms of waste, there is at the same time a partial or complete inability on the part of the glands to throw off this accumulation, and as a natural consequence autoinfection must occur. It is not always the elevated temperature that kills, for animals have been kept at a high fever for several weeks and no dangerous symptoms supervened. But it is this very condition of toxaemia which often produces the typhoid symptoms, the heart failure, and the complications. And here are suggested the two important questions,—"Is it always expedient to reduce temperature? If so, should we employ drugs which tend to check elimination?

The act of digestion may, as stated, give rise to a great variety of noxious products. Not only the alkaloids and extractives, but acids, gases, and imperfectly converted substances may thus be generated. A part of these the liver acts upon. Many of them, however, enter the general circulation and produce their characteristic symptoms. Impairment of digestion is at once shown, not only by the ordinary rational signs, but by the condition of the urine, which invariably contains phosphates, urates, or oxalates, to say nothing of other and varied forms of waste. It is not necessary that I consider in detail the very palpable symptoms of uraemia, lithaemia, oxaluria, stercoraemia, or gouty and rheumatic conditions, with whose phenomena you

[1] Annual of the Univ. Med. Sciences. 1888.

are all thoroughly familiar, and which, I believe, owe their origin almost solely to faults of assimilation and elimination. Neither is it expedient that I more than allude to the many forms of disease which may result indirectly from chronic dyspepsia, for these also are well known to you.

The suppression of the gastro-intestinal secretions is also followed by well recognized phenomena, as, for example, a sallow skin and conjunctiva, fatigue on exertion, vertigo, restlessness, depression, and other mental states. There are also strong reasons for attributing some of the acute catarrhal conditions of the intestinal mucous membrane to the products of faulty digestion. Rothery[1] relates a well marked case of insanity produced in this way. Tyrell[2] reports instances of vertigo and melancholia which he believes were caused by the absorption of sulphuretted hydrogen gas from the intestine, while Senator[3] goes so far as to state that all the constitutional symptoms of dyspepsia are caused by the absorption into the blood of the noxious products of digestion.

Not until we take due account of the functions of the liver, both in health and disease, can we appreciate its influence on excretion. It may be stated that the liver guards the entrance to the circulation, keeping from it both the excess of nutritive material and the morbific agents of the digestive tract. The peptones not needed for tissue repair are split up into glycogen and urea. The carbo-hydrates are converted into similar products lest they enter the blood and undergo fermentation, while kreatin, cholesterine, and such bodies, together with the sulphates and phosphates derived likewise from albumen, are carried hither for further elaboration. Observation shows that every ingredient of organized tissue is acted upon by the liver, and either excreted, or modified for future use in the economy. It is not difficult to understand, therefore, the effect exerted upon the system by even a functional derangement of this gland. We are all familiar with the phenomena produced by the absorption into the blood of the various constituents of the biliary secretion. We know that bile acids, when introduced into the

[1] "Provincial Medical Journal." 1887.
[2] "Pacific M. & S. Jour." January and May, 1882.
[3] "Zeitschr. F. Klin. Med." Bd. 7.

circulation, destroy the red blood corpuscles, and produce degeneration of the glands and other tissues, spasm of the respiratory muscles, and slowing of the pulse, by their action on the cardiac ganglia,—so that, in jaundice, there is increased decomposition of corpuscles and liberation of haemoglobin, while, on the other hand, a solution of haemoglobin injected into the blood causes jaundice and bile pigment in the urine. Thus we see that the liver may exert its influence in three ways, namely, by imperfect metabolism of material passing through its substance; by the absorption of its own waste; or by its inability to supply a sufficient amount of the latter for the performance of normal intestinal digestion.

Through the activity of the respiratory organs, some of the nitrogenous waste disappears, having been converted into urea, or some less oxidized substance, as uric acid, which, with other solid and volatile products, is excreted by the kidneys. Now, the effect of impure blood upon these glands was long ago commented upon by Bright, and latterly by many others. The effect of its vitiated condition is shown first upon the epithelium of the tubules, and afterwards upon the connective tissue. It has been stated, on good authority, that albuminuria may be the direct result of a high specific gravity, or by constantly alkaline urine containing lime salts. Semmola [1] states,—"The gradual and prolonged elimination of albumen invokes an inflammatory process, followed by interstitial nephritis." Moreover, there is reason to believe that an identical change occurs in the walls of the blood-vessels from a similar cause. Johnson [2] looks upon this modified condition of the blood as being the most frequent cause of initial renal changes.

Aside from the purely mechanical effects exerted by these substances, there is another equally important one,—they increase the blood pressure. It was fully demonstrated by Parks,[3] a few years ago, by means of sphygmographic tracings, that a non-nitrogenous diet diminished the blood tension, while a nitrogenous one increased it. The inference to be drawn from this fact is strikingly plain. This concentration, especially of

[1] "La Medicina Contemporan." June, 1885.
[2] Medical Lect. and Essays. London, 1887.
[3] Lancet. May 23-30. 1874.

the chlorides, was ascertained by Novi[1] to act upon the tissues by abstracting water: thus convulsions were produced by its removal from the brain. Among other constituents of the urine, it may be mentioned that acetone, whose origin is ascribed both to the proteids and carbo-hydrates, has been found by Baginsky[2] in large quantities during febrile conditions, and is capable, he believes, of producing nephritis; while Senator considers it one of the most dangerous poisons, and one which often produces death in chronic affections of the internal organs. He notes the fact that in fatal cases of diabetes there appears a large amount of acetone in the urine. This is, however, but one of the many substances which render this fluid so harmful when absorbed. Although there may be at times a difficulty in locating the initial lesions produced, their nature is fully established. There is muscular thickening of the arterioles and larger vessels, hypertrophy of the ventricle and degenerative changes in the kidney, with increase of connective tissue.

The degree of blood pressure has also much to do with the condition of the internal organs. A low pressure indicates dilated capillaries and a relaxed venous system; high tension, the opposite condition of things. A poorly nourished subject has, as a rule, a weak heart, which in turn implies congested lungs and a tendency to catarrhal affections. Added to this is imperfect lung expansion. Now, as waste matter is poured into the blood, there are imperfect facilities for disposing of it. It cannot undergo oxidation. The accumulation of carbonic acid gas prevents of itself the absorption of oxygen. The excreta in time act upon the blood-making organs, the spleen, the lymphatic glands, and the marrow of the bones, thus preventing, in another way, the elaboration of this vital fluid.

The irritating effects of the blood thus contaminated is shown in the lungs as well as in the kidneys. There is a proliferation of connective tissue, so that if you accept the opinions of Cohnheim, Fothergill, and others that tubercle is but a modified form of the latter, we can place to its credit other and more grave affections. Dr. T. N. Reynolds,[3] in a paper on this sub-

[1] "Lo Sperimentale."
[2] "Archiv. F. Kinderkr."
[3] Amer. Med. Association, 1883.

ject, concludes that both bronchitis and phthisis may be due to the local action of septic material carried to the lungs in cases of intestinal dyspepsia, and Nordhorst[1] has shown, from a similar stand-point, the relationship which exists between such forms of mal-nutrition and tuberculosis. This fault in aeration is productive of many other changes, chief among which may be mentioned the dependence of gout and rheumatism upon suboxidation—a theory which is familiar to you.

Physiology teaches that fats are derived, in many cases, from the decomposition of proteid bodies; so that faulty digestion may limit the supply to the tissues, or a normal amount, carried to the blood, may fail to undergo oxidation, so that in deficient respiratory action or other condition interfering with a due supply of oxygen, we may have either anaemia from the action of this *débris* upon the corpuscles, or a deposit in the tissues of unoxidized fat. Litten attributes the fatty degeneration of high temperature to a poisoning of the red blood globules, and consequent diminution of the supply of oxygen. Alcohol and the poisons of various constitutional diseases produce, in a like way, somewhat similar results. It may be safely stated that fatty degeneration is an error in nutrition, produced by a scanty supply or an impoverished condition of the blood.

Thus the development of leucomaines and poisonous extractives have been traced from the tissues or the alimentary canal, and their effects upon the nervous, glandular, and muscular systems have been noted. I have endeavored to show how an increased specific gravity of the blood may be produced, and some of the results of it. How toxic material may generate fever, and set up inflammatory changes in the vessels and glands, and how these may develop into structural disease. I have emphasized the important relations which the retained excreta bear to fatty, fibroid, and tubercular degenerations. Therefore, as we appreciate the many and varied conditions thus produced, we shall have little difficulty in explaining the complications which arise in the course of various diseases. The cases of metastasis, of secondary inflammations, congestions, effusions, and disorders of the nervous system which so often supervene, need not surprise us, knowing as we do that

[1] "Deutsch. Med. Woch." xii, 129.

they take their origin from some abnormal condition of the blood or circulatory system, in accordance with definite chemical and physiological laws.

There is an infinite variety of septicaemic conditions. Indeed, so varied are they in nature and degree, that we sometimes fail to appreciate them. More cases than we imagine die of septic poisoning, while many others are, I believe, prolonged indefinitely by reason of the inability of the various organs to eliminate the poisons generated during the progress of the disease.

I have given but an outline of a subject which is almost limitless, and one which seems only to grow in extent as we pause to investigate. The limited time and space forbid its full and logical treatment. Many toxic conditions have been not even referred to, while others have been dismissed with little more than a reference to authorities. I have been content to present to you some of the recent data which seem to establish the etiological importance of faulty elimination in the hope that such investigations have contributed indirectly to the more rational and scientific treatment of disease.

DISCUSSION.

Dr. J. W. Parsons, of Portsmouth.—It gratified me very much indeed to listen to Dr. Berry's paper, and it seems to me that it is very opportune. It comes in well at this time, for the reason that everything lately has been running to the germ theory. I am unable to discuss the matter very much, from the fact that I cannot take any opposition ground, and can only affirm what he has said, so far as my belief goes. Of course it is not to be expected that I have made any observations or experiments to prove or disprove the assertions which the doctor has made upon the very highest authority. And I can only say that I have long had ideas myself somewhat similar to those which he has expressed. I believe that we may learn something from the methods of former practitioners in medicine as to the beneficial effects of elimination. The emetics and cathartics, in my opinion, did a great deal of good, as well, perhaps, as a great deal of injury. And they

did this good simply by elimination; not that poison exists in the system solely in the blood, and if you draw away so much blood you take away so much poison, but the shock in drawing the blood produces such a change in the system in some cases that it in a measure rejuvenates the system, puts it under a new condition, and stimulates it to new work and to better methods of elimination.

I believe that one of the great secrets of the successes which result to persons who visit the various baths and mineral springs is simply from the quantity of water that is drank, with which they deluge their systems. The beneficial results from Turkish baths, and the beneficial results which come from the water-cure establishments, are, in my opinion, all in this same line. And I firmly believe that the detention in the system of various poisons, of effete matters which really become poisons, is the cause of a great deal of sickness.

The doctor began his paper by saying it is not fully understood. I can agree with him in that. It is not fully understood, because the question is such an intricate one, and so difficult to get at. Some little cell, perhaps, may be at fault, and the faulty action of that cell in eliminating the effete matter may throw out of gear the function of some other cell, and so on through the system.

Where there is life there must be death, and where there is death there must be poison. It is inevitable, reasoning from analogy and observation, through the whole animal kingdom. We know, and see, and can reason that there must be effete matter, and our daily experience shows us that such matter must be poisonous, must be injurious. It does not seem to me that it requires a great deal of scientific knowledge, or any great amount of investigation, to determine that single point. But to prove it of course requires a great deal of labor, and more technical knowledge, certainly, than I possess.

REPORT ON SURGERY.

BY F. A. STILLINGS, M. D., OF CONCORD.

Mr. President and Fellows:

When I was notified by your secretary that I had been honored by you with a request to prepare a report on surgery, to be read at this meeting, I thought I had been given an easy task; but on considering the matter, I found the order a large one, and one that might be made to take up more time than can be devoted to it here.

It has seemed best to me, instead of copying generally from the current literature of the day, to report on a few of the cases coming under my observation in my own practice and that of my friends. In choosing these, I do so with the hope that they will prove of more interest to you than an abstract of reports of foreign cases, as they are precisely the kind that are liable to come before any of you at any time. In a large percentage of these I am permitted by the trustees of the Concord Hospital to quote from the records of that institution.

Case 1, male. Severe burn of face, neck, hands, and arms (by an explosion of gas), and complicated by the scalp's being torn from the top of the head by the force of the explosion. The scalp was replaced, and the burned surface covered with vaseline spread on Canton flannel. Morphia was administered to relieve the pain, and whiskey *ad libitum* to rally him; but he became unconscious in a short time, and died in twenty-three hours.

Cases 2 and 3 were admitted at the same time, suffering

from burns of the face, head, neck, hands, and wrists, from the same explosion. The portions of skin hanging in shreds were removed, and the burns were dressed the same as in the first case. An ounce and a half of brandy was given every two hours, and, after a few hours, milk in dessert-spoonful doses. The swelling of the burned parts was very great, and comparatively large doses of morphia were required to relieve the pain. Both were delirious for the first two days. Suppuration was very profuse as the cases progressed, and several remedies were tried in succession. Among others, boracic acid and agnine, a drachm to the ounce, which did fairly well. This was followed by carron oil, applied over powdered tannin, which checked suppuration, and healing went on rapidly. All the dressings were applied on Canton flannel, and the parts thoroughly protected from the air. Very little disfigurement resulted. They remained in hospital thirty-one days, and were discharged well. The tannin and carron oil were given much credit for the rapid healing in these cases.

Case 4, female. Was admitted to hospital Feb. 10, 1887. Sept. 11, 1886, her clothing caught fire from an oil-stove, burning deeply the calves of the legs, thighs, gluteal regions, back, shoulders, and over left deltoid region. Previous to entrance to hospital the burns had been dressed with carron oil, carbolized cosmoline, plain cosmoline, tannin, boracic acid, and nitrate of silver. Three hundred pieces of skin had been grafted, and many had been successful. February 16 thirty-five grafts were planted; ten days later forty-five; and March 5 one hundred—making in all four hundred and eighty. Ten days after the last were planted the record says, "nearly all the later grafts destroyed, and there is general failure." Large surfaces that had healed melted away, leaving the wounds nearly as large as at first. Tonics and stimulants were crowded, and in two weeks "marked improvement" was noted. The wounds gradually closed in, but at each monthly period the openings became larger, the granulations flabby and sodden, and for two or three days there would be a rise in temperature to 104° or 105°. This would gradually subside, and in about a week the temperature would be nearly normal, and the wounds begin to heal again. Menstruation irregular, but when it did occur she

suffered less disturbance than when she passed a period. Through February and March of this year her wounds were dressed with tincture myrrh, vaseline, etc., and for a time closed in rapidly; and then the new tissue broke down again, leaving large open sores. April 5 the wounds were dressed with fuller's earth and salicin and general tonic treatment continued. Healing went on rapidly, until, May 3, the openings on the nates were only two inches square, with one on right calf three fourths inch wide and three inches long; all the others had healed. Two days later, and just two days before her menstruation was due, temperature rose to 105°. The next morning she developed dermatitis of legs and abdomen, with intense itching and pain. The stomach became disordered, and the temperature varied from 102° to 106°. May 9, morning temperature $105\frac{5}{10}$°. Antipyrine gr. v was administered, and three grains ordered every three hours till temperature was reduced. As a result of first dose the temperature fell to 103°, and the record shows only two doses given that day. The day following, morning temperature 105°. Antipyrine gr. v was again given, and temperature fell to $100\frac{4}{10}$° inside of forty minutes. Pulse 124. The fall of temperature was so rapid that brandy was given every two or three hours, and in twelve hours the temperature was $101\frac{8}{10}$°. Patient up to this time had been unable to retain much nourishment, living principally on milk and brandy, with nutritive enemata. Four days later she became slightly hysterical, and could not open her eyes, or speak. This condition lasted about thirty-six hours, when she began gradually to regain control of her muscles; but she was very weak, and unable to move even her head upon the pillow. At this time the dermatitis began to subside and the stomach to retain food. The wounds are noted as having opened to about four times the size they were when this attack commenced. "May 19, takes a fair amount of nourishment and sleeps well. Is taking muriated tinct. iron and quin. sulph. Brandy and milk freely with clysmic water." "The granulations, which have been very flabby and watery, have sunk below the level of the skin, and are taking on a healthier look, and commencing to heal again. The wounds are kept covered with calcined magnesia. The color is coming back to her face, she takes more nourishment,

the wounds continue to heal, and her general condition is improving." At the present writing, June 16, the wounds are slowly closing in.

Case 5, female. While working at a steam mangle, allowed her fingers to follow in a folded pillow-case; and when that went through, the steam-heated rolls caught her fingers and rolled the hand in up to the wrist-joint before the mangle could be stopped, making a particularly bad wound, as there was about a thousand pounds' pressure on the rolls,—the top roll, which was cool and covered with cloth, gouging the hand, and the lower roll burning it. All the fingers were flattened and literally cooked on palmar surface, and also between them. The skin of dorsam of fingers was not injured so much, and was finally saved. The whole palm of hand and palmar surface of fingers was burned and torn away, freely exposing the tendons, and in two or three places the periosteum. Amputation of the fingers was advised, trying to save the thumb and metacarpal bones. This was declined by the patient, as she was afraid of the knife, and preferred to take her chances without it. The hand was placed on a straight board splint wrapped in cotton and Canton flannel, and kept saturated with carron oil. Frequent doses of morphia were required to relieve the intense pain. Applications of various ointments were made, but I usually came back to the carron oil. As fast as the sloughs separated, I cut them away from the parts, and in a little more than a week healing had commenced. The granulations filled in rapidly, and during the last month of treatment the edges of the wound were touched up with nitrate of silver, and an ointment of boracic acid and cosmoline ʒi to ℥i applied. As healing went on, it became more difficult to keep the fingers extended, especially as she had no courage to allow force to be used. At the end of about three months she was discharged. Since then, as the cicatricial tissue has hardened, contraction has occurred, till the fingers are firmly flexed, and the hand is practically useless; while if the fingers had been amputated as advised, the result would probably have been a fairly useful thumb and hand.

Case 6, male. Was overseeing the pouring of a large casting at the iron foundry, when the flask broke and the molten

iron was thrown against him, filling a low shoe full. The workmen instantly threw him down and pulled off his shoe and stocking, but not before the dorsum of the foot, where the heated metal struck first, was burned so that the sheaths of the tendons were exposed in two or three places. The iron ran down the side of foot into bottom of shoe, destroying the skin over the whole plantar surface and of all the toes. Bromide of morphia was administered to relieve the pain, and for the first twelve hours the foot and ankle were kept wrapped in cloths wet with a saturated solution of Sodae Bicarb. After this the foot was dressed with carron oil on Canton flannel. The wounds of toes and bottom of foot healed rapidly, and in about two weeks were practically well; but the granulations on the dorsum of foot were more exuberant, and not inclined to heal. Ointment of boracic acid and cosmoline, carbolized cosmoline, and various other compounds were used, but with very little benefit. At last I covered the suppurating surface about an inch thick with absorbent cotton, and did not remove it for a week, keeping it wet all the time with a solution of phenol-sodique. Under this treatment the foot healed rapidly, and in about five weeks from the date of injury the opening was closed, and he was walking about with the aid of a cane. In this case I think the recovery could have been hastened by putting on the phenol dressing a week or ten days earlier, and not disturbing it, as the ordinary attempts at cleansing the wound seemed to retard the healing.

I think the above comprise all the cases of burns of any magnitude that have come under my observation during the past twelve months. In noting the different remedies used in these cases, I have found nothing that had any better effect than the old-fashioned remedy, carron oil. The objectionable smell of this mixture can be obviated almost entirely by the use of almond oil instead of linseed. Another thing I think worth mentioning is the superiority of Canton flannel over the cotton or linen cloth used ordinarily to cover burns with. The flannel is thicker, holds more of the emulsion or ointment, and protects the parts more thoroughly from the air. Of phenol-sodique I know but little, as my experience with it in burns, at a comparatively early stage, is confined to the one case mentioned.

At a later stage of the burns in Case 4, it was tried, but with little or no benefit.

Case 7, female, aged forty-eight, married. Was admitted to hospital suffering with vesical calculus, which could be easily felt with the sound. She was etherized, and rapid dilatation of the urethra attempted by means of dilators, and at last using the finger. It took about thirty minutes before the index finger could be passed into the bladder. The stone was found to be about one inch and a half in diameter, and so brittle that every attempt to grasp it with forceps simply crushed it into fine sand. As Bigelow's apparatus for washing out the bladder was not at hand, the operation became very tedious before the last of the calculus was removed. An antiseptic bladder douche was then given, and the patient put to bed, and the douche ordered to be repeated every four hours. Liquid diet, anodynes as needed. Very little swelling of the genitals took place, and she suffered little pain. After some ten days she began to suffer from nausea, and gradually failed, so that for two weeks it looked as though she was slowly sinking from septicaemia. Stimulants, tonics, and everything to combat death were used, and after a time she stopped growing worse, and improved slowly. Seven weeks after the operation she was still very feeble, and as she was homesick, was, at her own request, discharged from the hospital one month later. I am told she is slowly recovering.

Case 8, female, aged thirty-five, married. Was admitted to hospital May 23. For the past ten years this woman has suffered from periodical attacks, occurring every two or three weeks, of strangury, when she would roll about on the floor and scream, with pain in the bladder, and after several hours of suffering would pass off with her urine from half a dram to a dram of bloody shreds. Morphia, chloral, and bromides by the mouth, ether and chloroform by inhalation, were tried one after the other to relieve the paroxysms of pain; but were useless unless carried to a point where she became insensible. The bladder was repeatedly sounded for stone, but with negative results. Five or six years ago she decided to go to Boston for treatment, and was admitted to hospital there. She was kept under observation for several days, the bladder sounded,

The meeting was called together again at 3 o'clock, when the papers of Drs. Parsons and Sullivan were taken from the table, and discussion followed, in which Drs. Wheeler, Whittier, Pray, Horsch, Lathrop, Pike, Stackpole, and Ham participated.

REPORT OF CENTER DISTRICT SOCIETY.

GEORGE COOK, M. D., SECRETARY.

CONCORD, April, 1887.

The report of the proceedings of this society for its four quarterly meetings since the last State Society meeting is as follows:

JULY, 1886. — Dr. J. H. Sanborn, of Franklin Falls, read a report of cases occurring in his practice and some in consultation upon "Threatened Eclampsia in Pregnancy." Dr. D. E. Sullivan read an essay upon "Cephalalgia," and Dr. T. Hiland gave us a very interesting account of diseases seen by him among natives of some of the islands of the Pacific ocean.

OCTOBER, 1886. — Dr. Thomas Hiland, of Concord, read a paper upon "Diseases of the Cornea." The discussion which followed finally drifted about until diabetes was reached, which disease was largely discussed, and with reports of cases constituted the doings of this meeting.

JANUARY, 1887. — Dr. Carvelle, of Manchester, read a paper upon "Albuminuric Retinitis." Some interesting and instructive cases were reported by different members.

The president, Dr. D. M. Currier, delivered the annual address.

Officers elected for the year were:

President — Dr. I. G. Anthoine, of Antrim.
Vice-President — Dr. Wm. Child, of New Hampton.
Secretary — Dr. George Cook, of Concord.
Treasurer — Dr. C. R. Walker, of Concord.
Librarian — Dr. I. A. Watson, of Concord.

The annual banquet was served. Post-prandial exercises conducted by the president-elect.

APRIL, 1887. — Dr. T. M. Togus read a paper upon "Leucorrhœa," and Dr. Cook one upon "The Management of Natural Labor." General discussion followed, and report of cases. Dr. Cook resigned as secretary. Dr. H. C. Cummings, of Concord, was elected to fill the vacancy.

REPORTS OF DELEGATES.

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Mr. President and Fellows of the New Hampshire Medical Society:

In conformity to the custom of your delegates to the American Medical Association, I will give this Society a hasty sketch of the proceedings of that association, which held its thirty-eighth annual meeting in Chicago, Ill., June 7, 8, 9, and 10, 1887.

FIRST DAY.

TUESDAY, June 7, 1887.

The association met in Central Music Hall, and was called to order at 11 o'clock by the chairman of the committee of arrangements, Charles Gilman Smith, of Chicago. Prayer was offered by Rev. S. J. McPherson, D. D., in which he placed the association under the care and protection of the Supreme Ruler of the universe. The address of welcome was made by His Honor Mayor John A. Roche. He first paid his compliments to the importance and dignity of the medical profession, the relation it sustained to suffering humanity, and then eloquently and heartily welcomed the association to the unstinted hospitality and kind attention of the people of Chicago.

The ex-presidents were invited to take seats upon the platform, and N. S. Davis, of Chicago; T. G. Richardson, of New Orleans;

J. M. Toner, of Washington; and William Brodie, of Detroit, responded to the invitation. Dr. P. H. Millard, of Stillwater, Minn., first vice-president, occupied the chair. Dr. Smith then introduced the president, Dr. E. H. Gregory, of St. Louis, who delivered the

ANNUAL ADDRESS.

He first congratulated the association on the auspicious opening of its annual meeting, and warmly expressed his high appreciation of the honor given him by elevating him to the presidency. He then commenced his paper by saying:

"Force and matter" make up the universe. Force implies antagonism, antagonism perpetuates motion. The living cell is the embodiment of nature. Cell antagonism is life. Multicellular organisms represent a community of vital unities. Cell struggle is the gist of modern pathology. Every organ and every element is vulnerable. The strength of resistance in elements and organs, re-inforced by the harmony and precision of co-ordination, and the vigor of counter-agencies, are the momentous questions.

In seeking for a comprehensive title for my address, I fell upon the two simple words

CELL ANTAGONISM,

"which form the foundation of symptomatology and pathology, conjoined with cell changes, the basis of pathological anatomy, embracing at once the universe of life and all the possibilities of life, disease being but one of the multitudinous phases of life." He quotes Huxley, who likened the body to an army: of this army each cell is a soldier, an organ a brigade; the central nervous system, headquarters and field telegraph; the alimentary and circulatory system, the commissariat. Losses are made good by recruits born in camp, and the life of the individual is a campaign, conducted successfully for a number of years, but with certain defeat in the long run. Cell antagonism constitutes the essentials of pathology. Inflammation, the key-stone of medical science, is only to be explained on the theory of cell antagonism, a struggle between irritant bodies and white blood-cells.

Cells live on themselves, by themselves, and for the whole body. The giant cells are formed by the uniting of the budding processes from amœboid mass of protoplasm. These giant masses of protoplasm appear in lupus and tubercle, and in their substance the bacillus is found. He divided cell-structure into two classes, the mobilized or encocytes, and the bacteria or intruding cells. He then mapped out the view that there is a struggle between encocytes and bacteria, and that when the microbes prevail inflammation and suppuration take place. From this standpoint may be seen the close relation between Pasteur's preventive inoculation and Lister's equally important work in devising methods by which the microbes can be rendered harmless. Some time was spent in considering the question whether or not a cell can enter upon a life of independence, and from this passed to Cohnheim's theory of the etiology of tumors, namely, persistence of germinal rudiments. Emancipated cells were put entirely out of the question. He noticed, in kind words, the death of W. O. Baldwin, ex-president of the association, and closed his address with referring to the coming International Medical Congress, the success of which is assured, and urged the association to welcome all to the great gathering.

The address was referred to the committee on publication, and a vote of thanks given to the president.

Dr. A. Nelson Bell, of New York, under the head of Reports of Special Committees, read the report of the committee on immigration, which by accident failed to reach the association last year, and presented the following resolution, which was adopted:

Resolved, That the secretary of the association be and is hereby directed to transmit copies of this report to the secretary of the treasury of the United States, and to both the Senate and House committees on commerce, and urge upon them such action, through Congress or otherwise, that will secure better protection of the lives and health of immigrants coming to the United States, and against the reception of dependent persons.

Dr. D. J. Roberts, of Tennessee, presented a long preamble and several resolutions, condemning an editorial on the American Medical Association that came out in the "Chicago Times." He

was very sure the "Times" was sadly out of joint, and wished strongly to deny that "Chicago is unfavorable for harmonious medical action," and protested against the statement that the orthodox medical men of this region are beyond doubt the most bigoted and intolerant in the nation.

Dr. Dudley S. Reynolds, of New York, moved the adoption of the resolution. Dr. Eugene Griscom, of North Carolina, moved that it be laid upon the table. This motion was carried by 133 ayes to 89 nays.

Dr. William Brodie, of Detroit, moved that the amendment to the by-laws providing for a section in dermatology and venereal diseases be taken from the table. Dr. G. H. Rohe, of Baltimore, then moved that the amendment be amended so as to read "dermatology and syphilography," which was then adopted. Dr. J. McF. Gaston, of Atlanta, presented the report to memorialize Congress with reference to inoculation for yellow fever, which was referred to the section on state medicine. A committee, made up of a delegate from each State and Territory, to nominate officers of the association for the ensuing year, and also a member from each State and Territory to serve on the committees on state medicine and necrology, and as there were only two delegates from New Hampshire, Dr. J. W. Parsons and myself, Dr. Parsons kindly consented to serve on the committee on nominations. The association then adjourned until to-morrow, at 10 o'clock A. M. At 3 o'clock P. M., the several sections met and commenced their special work. I attended the section on surgery; several interesting papers were read. This section was presided over by Dr. H. H. Mudd; secretary, Dr. A. M. Pollock.

First paper, "Cerebral Abscess," by Thos. O. Summers, of Jacksonville, Fla.; second, "Trephining in a Case Intermeningeal Hæmatoma with Hemiplegia," by S. S. Armstrong, Memphis, Tenn; third, "Skin-grafting," by J. D. Griffith, Kansas City, Mo.; others just as interesting were read, but I will not notice them, for you who take the journal of the association will receive them in due time.

SECOND DAY.

WEDNESDAY, June 8.

The association was called to order by the president. Prayer was offered by Rev. Mr. Gunsaulus, of Plymouth Church. First in order was the report of the committee of arrangements. Dr. J. M. Toner, chairman of the board of trustees for the publication of the Journal of the association, read the annual report, giving the statistical condition of the Journal, and that N. S. Davis, of Chicago, had consented to remain the managing editor of the Journal for another year, and recommended more permanent arrangements affecting publication and printing than now exist.

The report was accepted, and adopted. Dr. Roberts asked permission to withdraw his resolutions in reference to the "Chicago Times," which were tabled yesterday, as that paper had made satisfactory acknowledgments. His request was granted.

Dr. N. S. Davis, chairman of the special committee on changes in the plan of organization and by-laws of the association, made an extensive report. Several changes were recommended to be made in the constitution and by-laws of the association. The report gave rise to a heated discussion relating to the question, Shall the proposed amendments be adopted at the present meeting of the association, or must they lie over for one year? Dr. A. N. Bell moved that it was the sense of the association that these proposed amendments have been practically considered according to the requirements of the constitution for one year. Motion carried. Yeas, 272; nays, 232. Motions, counter-motions, amendments, previous questions, and points of order in all parts of the hall, but the president decided that as the report of the committee had been accepted and adopted, that this affixed the proposed amendments to the constitution and by-laws.

The secretary, W. B. Atkinson, of Philadelphia, then announced the committee on nominations.

The American Pharmaceutical Association sent the following resolution, which was read and adopted:

Resolved, That this association solicits the aid and co-operation of the American Medical Association in promoting the prescrib-

ing of official medicines only, or such preparations as have published formulas, in preference to others.

Dr. J. S. Lynch read a very brief paper upon "Pulmonary Phthisis," and as to treatment he could report nothing in favor of Bergeon's method of rectal injections of sulphuretted hydrogen gas. Any germicide which can destroy the microbes must kill the patient.

Dr. H. H. Mudd, chairman of the section on anatomy and surgery, being detained at home on account of sickness, his address was not read, but simply put into the hands of the publishing committee. The association then adjourned until Thursday at 10 A. M.

At 3 P. M. the different sections again met. I attended the section on practice of medicine, Materia Medica, and physiology, which met in Apollo Hall, Dr. J. S. Lynch, chairman, and J. B. Marvin, secretary. Several papers were read, after the nomination of officers for the ensuing year. The first paper presented "The Treatment of Felon without Incision," by L. Duncan Bulkley, New York. The second, "Antipyrine in Rheumatism, Its Value and Mode of Action," by N. S. Davis, Jr., Chicago. The third, "Exhibition of Pure Culture of Numerous Pathogenic Bacteria," by Frank Billings, Chicago. The fourth, "Acute Fœtal Delirium; Its Differential Relations," by E. C. Spitzka, New York.

THIRD DAY.

THURSDAY, June 9.

The association was called to order by the president; prayer by Rev. John A. Barrows, D. D. A communication of congratulations was received from the Ontario Medical Association, and was responded to in sympathy and good-fellowship by the American Medical Association.

The chairman of the committee on nominations, Dr. Brodie, of Detroit, made his report, and the place of the next annual meeting, which is to be held at Cincinnati, O., on the second Tuesday in May, 1888. Dr. Roberts, of Tennessee, moved to reconsider the vote taken in relation to the amendments of the constitution and by-laws, and that further action in accordance

with them be postponed until next year. An amendment was made by Dr. N. S. Davis that the proposed amendments to the constitution be not adopted, but lie upon the table subject to ratification in proper order at the opening of the next annual meeting, and was unanimously adopted. The report on the Rush monument was made by Dr. G. H. Rohe, of Baltimore, showing that $389 had been received.

The report of the special committee on cremation was read by Dr. John Morris, of Baltimore, which closed with the following resolution :

Resolved, That it is the judgment of this association that burial of persons dying of zymotic diseases should be placed by law under the control of health authorities.

Dr. F. M. Johnson, of Kansas City, Mo., chairman of the section on obstetrics, and of women and children, gave his address, in which he said : "Modified Cæsarean section was probably destined to succeed the use of forceps or version in certain cases. Hot water he regarded as a powerful agent to control uterine hemorrhage. Ergot should be given with caution ; ergot contractions are not normal. Uterine and vaginal injections during the puerperal period are of very doubtful utility ; but antiseptic principles in obstetrics were no longer a question, for the decided reduction of mortality in hospitals was an unanswerable argument in their favor."

Dr. G. H. Rohe then read the address of the chairman on "State Medicine." The record for state medicine for the past year is a creditable one. The danger of a cholera invasion into this country is at present greater than at any time within the past three years. He then referred to yellow-fever inoculation, and the relation of a peculiar disease in cows to scarlet fever. He closed his able and interesting address as follows : "While all advances in sanitary administration have doubtless contributed to produce these good results, the three prime factors are compulsory notification of infectious disease, prompt and effective isolation of the infected, and thorough disinfection of all infected articles and sources of infection. These must be the watchwords of the practical sanitarian of the future."

The treasurer's report showed a balance in the treasury of $1,403.77. The librarian's report was read and placed on file.

The committee on finance of the International Medical Congress asked for an appropriation of money. One thousand dollars was accordingly appropriated.

Dr. N. S. Davis then offered several resolutions to be made the special order for Friday morning.

Voted to adjourn until Friday at 10 o'clock A. M.

FOURTH DAY.

FRIDAY, June 10.

The association was called to order by the president; prayer by Rev. W. H. Vibbert, D. D.; report of committee of arrangements; final report of nominating committee; address of the chairman of the section on dental and oral surgery, Dr. J. G. Marshall, Illinois. This was a very interesting paper, and to be appreciated it must be read.

Dr. I. N. Quimby, of Jersey City, N. J., chairman of the section on medical jurisprudence, read his address, but on account of its length the members became very weary and restless. They did not appreciate its good points.

Dr. N. S. Davis then called up the resolutions which were of a special order, and were as follows:

First, That regular graduates of dental and oral schools and colleges, which required of their students a standard of preliminary or general education to the term of professional study, be recognized as members of the regular profession of medicine and eligible to membership in this association on the same conditions and subject to the same regulations as other members.

Second, That the committee of arrangements are hereafter directed, at each annual meeting of this association, to so arrange the programme regarding entertainments and receptions that the evening of the third day be reserved for the regular annual dinner, under such regulations that the members may dine with or without wine, according to choice, and pay only for what they elect to have furnished, and that be the entire cost of the dinner, leaving no part to be paid either by the local profession or the treasurer of the association.

The resolutions were unanimously adopted.

Dr. J. M. Toner presented the report of the committee on necrology.

Resolutions of thanks were presented by Dr. William Brodie to all who had contributed to the success and pleasure of the meeting, — to the citizens and the profession of Chicago, to the railroads which had given reduced rates, to the chairman of the transportation committee, and to Assistant Secretary L. H. Montgomery, of Chicago, to the various committees, and their chairmen, and to the president, which were adopted.

Dr. Garnett sent a telegram to the association, acknowledging the high honor conferred upon him in electing him president.

The association then adjourned.

Thus, Mr. President, I have endeavored to report to this Society the work which the American Medical Association did in its last annual meeting in as truthful and concise a manner as I could. It is a long report, and cannot be otherwise, for it covers a four days' work of our profession, divided into eight sections, and four to six papers daily in each section.

The association was very creditably entertained during its stay in the city, by both private and public receptions, on the evenings of the 7th, 8th, and 9th, given by the profession of the city; and also by an excursion to Pullman in the afternoon of Friday, the last day, by the city officials. Circumstances would not permit the writer to participate in these receptions, but he learned from those who did that no pains were spared to make them interesting and enjoyable.

Nothing came up in the association to disturb the harmony of its sittings in regard to the International Congress. I was heartily glad of this fact, for it seems to me that the highest attainments in medical culture, and best achievements of practical success in the medical profession of the United States, that it may stand in the advancing line of progress with those countries which may meet with us in the coming congress, ought to be the paramount wish and aim of every member in the medical profession in this grand republic.

All of which is most respectfully submitted.

W. B. PORTER.

REPORT OF DELEGATE TO THE MAINE MEDICAL ASSOCIATION.

Mr. President and Fellows:

The Maine Medical Association, to which I had the honor of being your delegate, met at Portland, June 14, 15, and 16, 1887. A morning, afternoon, and evening session was held during the first two days, and a morning session on the third day. All the papers read were of interest, and an opportunity was given for discussion. The time allowed for the reading of each paper was twenty minutes, a great improvement, in my opinion, over the long and sometimes tiresome papers of our New Hampshire Society.

As it would occupy too much space to speak of each paper separately, I will only mention a few points of particular interest gathered from several of the papers. One on "Intestinal Obstructions" showed very plainly the value of laparotomy in the various forms of intestinal obstruction, and as a means of diagnosis in doubtful cases, citing from his own practice cases to prove the same. Also one on "The Management of Abortion," which brought out a sharp discussion, a leading point in the paper being that it is always dangerous to leave the placenta within the uterus. A paper on "The Employment of the Insane" gave evidence of much better results by giving the inmates employment and liberty than by the old method of confinement. A lengthy report of the Committee upon the Status of the Registration Act was read, and resolutions passed condemning Governor Bodwell for recalling and vetoing the act after having approved the same, and they also declared the act to be still valid. The Wednesday evening session was devoted to the annual oration, which was very entertaining and instructive. After the oration a reception and collation was given at the Falmouth Hotel, which was a grand occasion.

Respectfully submitted.

I. G. ANTHOINE.

REPORT OF THE DELEGATE TO THE VERMONT STATE MEDICAL SOCIETY.

Mr. President and Fellows:

As junior delegate to the Vermont State Medical Society's annual meeting, held at Montpelier, October 14 and 15, 1886, I have the honor to submit the following report:

I attended the meeting, arriving early on the first day of its session, and not finding Dr. Welch — my senior colleague — present, I filled the vacancy made by his absence with the person of Dr. George Cook, of Concord, who by invitation had accompanied me thither from Wells River Junction.

Your delegation was very courteously received by the society and accorded its honors, one of its noticeable features being the large number of representative members present.

An important discussion before the meeting was the enacting of a law by the Legislature, then in session in the same building, creating a State Board of Health, in which, by invitation, your delegation took a part, giving an account of the creation, workings, and advantages of New Hampshire's present State Board, the result of which was the election of an able committee to urge upon the Legislature the importance of passing the bill, then pending before it, for a State Board, and, after thirteen years of memorializing by the society, the efforts of this committee have been crowned with success, and Vermont now enjoys the blessings of a good working State Board of Health, with Dr. C. L. Allen, of Rutland, as its secretary.

JOHN H. CUTLER,
For the Delegation.

OBITUARIES.

DR. ALBERT HARRISON CROSBY.

"The friends who loved him so dearly, the family who so adored him, the poor and unfortunate of whom he was the comfort and defence, know how much they all have lost in this distinguished man, whose life must remain as an eternal picture in memory. DEMELIO CASTELAR."

Death has during the last year deprived Concord of one who, for many years, was a distinguished member of the medical profession, viz.: Dr. A. H. Crosby, who died at the residence of his son-in-law, Col. E. H. Gilman, in Exeter, Sunday morning, September 5, 1886, of apoplexy.

Dr. Crosby was born in Gilmanton, April 23, 1825, and was the eldest son of Prof. Dixi Crosby of Dartmouth College. When quite a child his father moved to Hanover, at which place he received his early education, graduating from the academic department of Dartmouth College in 1848. He immediately commenced the study of law in the office of his uncle, Judge Nathan Crosby, in Lowell, and continued his studies at the Harvard University Law School and with the Hon. Samuel Fessenden, of Portland, Me. He began the practice of law in Francestown; in a year or two removed to the city of New York, and then to Connecticut. His health then failing, he spent one summer off "The Banks" in a fishing schooner. Finding himself still unable to practise his chosen profession, "and feeling that he had deserted the family profession, so full of reward and a fair amount of eminence, accompanied with a harvest of benevolence and good

deeds according to labor and skill," he determined to study medicine, and took his degree of M. D. in 1860 at Dartmouth, after having perfected himself in clinical study by two years' connection with the United States Marine Hospital at Chelsea and the Deer Island hospitals in Boston harbor. After graduating he commenced the practice of his profession at Wells River, with an enthusiasm which never deserted him during his life. He soon married Rebecca, daughter of Moody Moore, son of Dr. Isaac Moore, born and educated in Scotland, who emigrated to America, and was long in successful practice at Bath, N. H.

The war of the rebellion soon broke out, and he was appointed assistant surgeon of the Columbia Hospital, Washington, D. C., in 1862, and subsequently detailed as surgeon of the Thirteenth Regiment, Veteran Reserves. In 1863 he was assistant to his father in the provost-marshal's bureau, and finally post surgeon at the Rendezvous camp at Concord and in charge of the medical hospital there. At the close of the war he settled in Concord, where he spent the remainder of his life. There he entered upon an extensive practice and acquired high professional reputation. He was frequently summoned to difficult and critical cases in other places in and out of the State, and was often sought as a witness in court, his services being considered of the highest value. He, like his father, had a remarkable aptitude for surgery, and performed many difficult operations with entire success. In his operative work he was cool, bold, self-poised, and dextrous. Haste in operating was severely condemned, for with him the safety of the patient was ever paramount to surgical fame for celerity of work. The pretext which often figures in operative adventure, that the patient should not be denied the hundredth chance, when in fact honest judgment sees no hope, was a fallacy which never vitiated his surgical logic. He never was affected with the "*prurigo secondi* which has so seized the hand of modern surgery, and which has levied heavy contributions on the Hellenic tongue to give title to the numerous 'ectomies' which have lately been added to our nomenclature." He was ever conscious of the "*morality in art*," and though prudent, yet when his judgment decided in favor of operative action, he proceeded to his task without hesitation and without

apparent faltering; and the scalpel in his hand, guided as it was by the unflickering light of thorough anatomical knowledge, made no mistakes and never wandered from its aim.

Dr. Crosby had the advantage of an early classical education, a thorough education, in which the "humanities" had full place, during which time his delighted mind drew in a rich store of priceless treasures; and what he then learned his marvelous memory retained ever afterward. The many toils of the busy professional life which in later years so engrossed him never dimmed the lines which youth and occupation had copied in his mind. With such an education and with such a store-house of the choicest gems of literature ever in his mind, it was no wonder that as a conversationalist he was without a rival.

In the presence of the poor he was all sympathy. Into few human hearts have these unfortunates found a more ready admission. No one was ever more considerate of the sick poor. In his relations to them as physician he brought the solicitous care of a father and the gentle tenderness of a mother. With this class, where painful manipulation was needed to determine the nature of the disease or injury, his touch was as gentle and his words as full of sympathy as if the subject was one who could give him a princely fee.

A writer for one of the papers said of Dr. Crosby: "In his character there was no duplicity nor disguise; he was in all things the soul of honor and frankness. It was highly to his credit that his relations with his professional brethren were always the most friendly. But, much as he loved his profession and zealously as he labored in it, he was something more than a mere physician; he had read much and possessed wide general information.

"In conversation he was ready and interesting, and it was not easy to touch any subject on which he was not able to talk intelligently, and even instructively. He contributed not infrequently to the medical journals, and to the newspaper press, and delivered many lectures before lyceums and literary societies. In every movement intended to promote the public health and comfort he was an earnest supporter."

Listen to the beautiful tribute paid to Dr. Crosby by Rev. Dr. Henry A. Coit, of St. Paul's:

"Dr. Crosby's sudden death this morning will be a great shock and affliction to many outside of his own family. One who has known him well for many years, who is indebted to him for innumerable acts of personal kindness, whom he has stood by as a true friend and a most able, painstaking, and loving physician in hours of the deepest anxiety and trouble, cannot forbear a hurried but most heartfelt tribute to his memory. For there are some for whom his place cannot be filled — some to whom his name is a synonym for disinterested sympathy and ready help and willing devotion of skill and energy. Perhaps he was too willing, too self-sacrificing. Perhaps if he had spared himself more, loved his ease more, studied his worldly interests as men usually do, he would now be living, with a strong hold on years to come, and with every prospect of reaching old age. But then he might not have won the grateful affection which will now be his from some of us while life lasts. For he has been taken from us in his prime and just in the ripeness of his experience and reputation.

"Dr. Crosby inherited a noble name. His grandfather, father, and brother were most successful and eminent physicians. His uncle was one of the finest classical scholars that America has ever produced. His mother was a woman of superior intellectual powers and moral excellence, and our friend came naturally by his innate refinement and affinity for all that was gentle and generous. He had a great love of nature and was full of interest and animation when discussing the Flora and Fauna of New Hampshire. He would have been just the companion for Audubon or Agassiz, with that zeal for scientific research which imparts meaning and purpose to the quick and keen observation of the wonderful provisions of nature. An accomplished naturalist, he was a most delightful and entertaining lecturer. His words flowed easily, in a pleasant, conversational style, like a full stream from an abundant reservoir. His colleagues in the medical profession will, no doubt, do justice to his large acquirements and great knowledge of the Materia Medica. For many years he has been a daily visitor, as the trusted physician and friend at St. Paul's school. In many instances his watchfulness has guarded against the entrance of disease. In no

case of sickness, even in the few which have terminated contrary to our wishes, has he failed to command the entire confidence of parents and physicians from the great cities, as well as to win our gratitude for his untiring care and attention. In many cases in the neighborhood of the school, when his advice has been sought for those who were unable to remunerate him, he has manifested the same interest and anxiety to relieve human suffering. The world is proverbially ungrateful, and a physician's disinterested labor and expenditure of skill may often go without thanks and without return. Dr. Crosby worked from love of his profession indeed, but also from unselfish love to his fellow-men.

"In the later years of his life (and in these only has it been the writer's privilege to know him) Dr. Crosby has been a sincerely religious man. He was baptized and confirmed in the chapel of St. Paul's school in the year 1879, and on few occasions since has he failed to be present and partake of the holy communion at the later monthly celebrations. He has also been a devout attendant at the chapel services on Sundays, taking his place among the crowded congregation of boys, and so preparing quietly and unconsciously for that worship of the redeemed in Paradise upon which, we trust, he has this day entered. For we who knew him best knew that he was a sincere believer in the gospel of our Lord and Saviour Jesus Christ, and that he was trying, in his way of living, to bring forth the fruits of a consistent Christian profession. And he was a good husband and father, and a loyal, steadfast friend. Those who loved him best will excuse this imperfect effort to express the feelings of a full heart. His name will be cherished at St. Paul's school and elsewhere by multitudes who have shared his kind and able ministrations, and have learned to love him as a man while they depended upon him as a trusted medical adviser. It is a comfort to commend him to the keeping of an All-Wise and Merciful Creator, to the love of an All-Tender and Pitiful Saviour. It is a comfort to pray that she who is so grievously afflicted may have the consolations and the support of Him 'whose compassions fail not.'"

In the character of Dr. Crosby one finds fully displayed those qualities which, in any profession, must ennoble human nature;

qualities too often overlooked, or, if seen, are not recognized at their proper value. For much of his work, like that of all good physicians, consisted of acts of kindness, which will ever remain untold, unwritten ; or, if written, it is in the hearts of the humble and lowly where they will remain unseen.

The pale messenger has knocked at his door, bearing the last summons, and from the urn of Destiny the fatal light has leaped forth which has borne him into irrevocable exile; yet he has not wholly died, since he has left us as example the peerless heritage of a spotless professional life, faultless, in action untarnished.

He was laid away in the beautiful cemetery at Hanover, beside his father, his grandfather, his younger brother, and his uncle, all distinguished masters of the healing art. His funeral was attended by a large number of sincere mourners; many distinguished in all the professions, especially medical men, desirous of taking one last, fond farewell view of their associate.

Kind hands brought many floral gifts to lessen the sadness of his journey to the narrow house. Many of them were of exquisite beauty, and in form designed to symbolize the faith which had cheered him during life and lent him its consolations in the supreme hour; and besides these there was another gift which, could he have seen, he would have prized the most. This was from the fingers of poverty, the only one it could give, woven of the simple flowers of gratitude, which the angel of good deeds brought and placed as an eternal offering at his tomb.

LUTHER M. KNIGHT, M. D.

Seldom has this Society been called upon to pay tribute to the memories of so many departed ones and to bring hither its willing gifts of rosemary for those who have gone down into the dark valley, — some in the early part of their professional career, others in the fullness of years and well-merited honors.

In the latter class may be included the name of Luther M. Knight, who was born in Franconia, N. H., April 11, 1810, the son of Thomas and Abigail (Knapp) Knight. His early educa-

tion was received in the common schools and at New Hampton Academy. He studied medicine with Dr. Colby, of Franconia, and attended lectures at the Dartmouth Medical College, where he graduated in 1834. In a class of twenty-nine his death was the twenty-first. He first located in Thornton, N. H., where he remained ten years, removing to Franklin, N. H., in 1845, where, with the exception of the time passed in the army, he remained until his death.

He early attained high rank in his profession, and for fifty years had a large and successful practice. He became an Odd Fellow in 1849, and passed the chairs of that order. He early in life united with the Congregational Church, and through life was an active and useful member of the same. He was likewise prominent in the civil affairs of the community, and represented Franklin in the Legislature in 1854–55. For many years prior to his death he was a member of our State Society, and was at one time its president. He was always an able and valuable contributor to its annual reports. In September, 1861, he was commissioned surgeon of the Fifth Regiment of N. H. Volunteers, and continued in the service until late in 1863, when impaired health compelled his resignation. While here he was promoted to brigade surgeon, and subsequently to chief medical officer of the first division, second army corps, in the staff of Gen. W. S. Hancock, and gained during this time an enviable record for skill, bravery, and efficiency. For many years after the war he held the position of examining surgeon for the pension bureau. He was a member of the Geo. F. Smart Post, G. A. R., and took a great interest in the welfare of that organization. He was married at Thornton, N. H., in 1842, to Miss Charlotte C. Tilton, daughter of James P. and Mary G. Tilton, whom he survived scarcely two years. Dr. Knight died February 3, 1887, at the age of 77 years — the cause of death being biliary calculi. He leaves four children, one of whom, a daughter, is not only afflicted with blindness, but is also an inmate of the insane asylum in Concord.

Dr. Knight was one of the oldest and best-known of the physicians of this Society, and one who was held in universal respect. His high professional acquirements and the wealth of experience

which he was enabled to present on all occasions rendered him a valued friend and counselor. He was a man of high moral courage and convictions. He was a friend of the poor and the needy, a shining light of a profession for which he made so many personal sacrifices, and an honor to this Society, which mourns his loss. J. J. B.

EDWIN O. PEARSON, M. D.

Died in Manchester, October 29, 1886, at the age of thirty-three years and eleven months.

His preliminary education was acquired in the High School of that city. Subsequently he entered the scientific department of Dartmouth College, from which he graduated in 1874. Being particularly interested in civil engineering, he was engaged in that occupation two years after his return to Manchester. He then began the study of dentistry, but soon relinquished it for that of medicine, for which he began to have a greater liking. He attended lectures at the Dartmouth Medical College, from which he received his diploma in 1878, graduating with honors, and being the valedictorian of his class.

Soon after graduation he obtained a position in a private asylum for the insane at Winchendon, Mass., which he filled with credit and where he remained some time. He not long afterwards resigned to accept the more important appointment of physician in the insane asylum at Concord, which he held for four years. Dr. Pearson during this period acquired a commendable degree of popularity among the residents of that city, and likewise became well versed in this special branch of medicine. About two years ago he settled in Manchester, and was not long in acquiring an enviable reputation for professional skill and acquirements.

He was married in February, 1884, to Miss Helen Martin, daughter of Daniel T. Martin, of Windsor, Vt., a lady whose devotion to his interests was one of the striking features of his married life.

In the early part of October he had a severe attack of pleurisy, which soon developed into a case of pneumonia, with typhoid symptoms. At the end of the third week, after a painful struggle, he succumbed to the disease.

In recording the personal attributes of our late brother, the pen of the biographer must falter in the effort to do justice to the many qualities of mind and heart of which he was possessed. Identified with the religious and intellectual life of the community in which he moved, few can be said to have acquired so fixed and enduring a place in the esteem and affection of its members. Considerate, gentlemanly, and thoroughly conscientious, he was entitled to the full confidence and respect which was so freely accorded him. As a physician, his record comes down to us without flaw or blemish. Well fitted by education for the duties of his profession, he followed the latter with unflagging interest and enthusiasm, and gave to his patients the results of careful medical study and mature judgment. In his professional relations, he was possessed of all those characteristics which become the true physician, and his loss will, for this reason if for no other, be keenly felt, not only by the fraternity of his own city, but by the other members of this Society as well.

J. J. B.

ALEXANDER ROGERS, M. D.

The subject of this sketch was the son of Robert and Margery Sullivan Rogers, and was born in Exeter, N. H., February 13, 1814. His maternal ancestors were well known in the early history of New England, his mother being the daughter of Eben Sullivan, of Berwick, Me., a brother of John and James Sullivan, all of whom held conspicuous positions in the military and civil services of the country during the Revolution. In 1826, he moved with his parents to Hopkinton, N. H., where he received a greater part of his early education. Four years later, at the age of sixteen, he passed through a long and very severe attack of typhoid fever, in consequence of which he remained an invalid many years, unfitted for physical labor or mental appli-

cation. Being naturally ambitious, this condition of health resulted in extreme mental depression, which rendered his ultimate recovery somewhat doubtful. For this reason Dr. James A. Gregg, through the leading physician of the place, was led to interest himself in the young man and from that time on the latter was intimately associated with him, first as a friend and companion only, but afterwards as a medical student. After continuing his medical studies for some years, his health became so much improved that he began to attend lectures, his first course being received at Woodstock, Vt., and the last at the Dartmouth Medical College, from which institution he received his diploma. About 1843 he commenced practice in Manchester, but in 1846 removed to Hopkinton, where he remained until his death, having succeeded to the practice of his old preceptor, Dr. Gregg. He rapidly acquired favor and reputation in his profession, and, as a result, several towns and a large section of country were included in his circuit, his daily ride being at one time over fifty miles a day. Some years ago, in con sequence of a defective highway, he was thrown from his sleigh and sustained injuries from which he never fully recovered, and which not only seriously interfered with his professional work, but was, undoubtedly, one of the causes of his last illness.

In the early part of his professional career Dr. Rogers married Sophia W. Goodrich, by whom he had two children, Margery Sullivan Chandler and Georgia A. Rogers, a recent graduate of the Colby University at New London.

The high and honorable position which Dr. Rogers occupied in the community, as well as the mental culture for which he was noted, were the natural results of indomitable energy, singleness of purpose, and conscientious effort. He was an enemy of hypocrisy and deceit in all its phases. He loved the truth for truth's sake, and the false had no part in the composition and tendency of his life-work.

He was devoted to the interests of his family, and, as a physician, will long hold a place in the memory of rich and poor alike, to whom he gave his best efforts without hesitation and with little thought of recompense.

His death occurred October 4, 1886, after a long and painful illness. J. J. B.

WILLIAM A. WEBSTER, M. D.

William A. Webster, M. D., was a son of William G. and Susan A. Webster, and was born in the town of Rochester, N. H., June 13, 1830. His early education was received at the public schools of his native town, and completed at the State Normal School in Bridgewater, Mass. In 1853, three years after his removal to Manchester, he was appointed principal of one of the grammar schools, and served in this capacity eight years. In the mean time he had given some attention to the study of medicine under the direction of Dr. William Buck, and for the completion of this course he matriculated at the Long Island College Hospital, from which he graduated in 1862. During the following summer he was appointed surgeon of the Ninth Regiment, New Hampshire Volunteers, which, a few weeks later, left for the seat of war, and engaged in its first action at the battle of South Mountain in September, 1862. Dr. Webster remained with his regiment until the spring of 1864, when he was appointed chief surgeon, or medical director, of the second division of the ninth army corps, which position he held for something over a year, when ill health compelled him to resign and return to the North.

He was immediately, upon his arrival in Manchester, appointed surgeon in the military hospital of that city, where he served until that institution was discontinued. He then located in Groton, Mass., where he remained in practice three years. From Groton he removed to Westford, Mass., where he followed his profession for ten years. In the spring of 1878 he returned to Manchester where he was as actively engaged in professional work as his health permitted. He was for several years a member of the board of United States Pension Examiners, Drs. How and Wilkins being his associates. He was for a long time interested in educational matters, having been a member of the city school board for many years in succession, and at the time of his death was connected with Lafayette Lodge, F. A. M., and Louis Bell Post, G. A. R.

Dr. Webster was twice married. His first wife was Miss Mary A. Haime, of Pittsfield, Mass., by whom he had two daughters. She died in 1855, and in August, 1858, he was married to Miss

Marion M. Ladd, of Middlesex, Vt., who, with two daughters, survives him.

His death resulted from malaria, which he contracted during his army service and from which he had been an almost constant sufferer for twenty years. Although practically an invalid he attended to practice up to within a week of his death, which occurred February 7, 1887.

In commenting upon the life of Dr. Webster I can no better express the feelings of the Society than by quoting the series of resolutions which were framed by three of his professional associates:

WHEREAS, In the dispensation of divine providence Dr. William A. Webster, our friend and professional brother, has been removed from among us, we, the physicians of Manchester, would place on record our appreciation of the manly character and professional ability that have won our confidence and esteem; therefore,

Resolved, That his sterling qualities of independence, strict honesty in all his dealings, faithfulness to his patients, courteous treatment of his professional brethren, his thorough education, and long experience as a physician and surgeon ably fitted him for his profession and rendered him most valuable as a reliable and trustworthy counselor.

Resolved, That the community has lost an intelligent sanitarian, one whose heart was deeply interested in the welfare of the general public, and who was earnestly working to remove the cause of disease, while he himself was gradually yielding to its baneful influence.

Resolved, That we appreciate and honor the courage with which he bore his sufferings through a long and painful illness, the result of his devotion to his country in the hour of her great peril.

Resolved, That to his family and friends he has left a priceless legacy that can come only from education, courage, Christian virtue, and true patriotism.

J. J. B.

ANNUAL MEETING, 1887.

LIST OF THE FELLOWS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY.

N. B. The secretary requests members to examine this list closely and notify him of any corrections to be made, as it is intended to publish the roll of members annually, and it is desirable to make it as accurate as possible. All members three years in arrears for dues are dropped from the Society. An asterisk (*) indicates a Retired Member.

Abbott, A. W.	Laconia.
Abbott, Edward	Tilton.
* Abbott, O. D.	Manchester.
Adams, D. S.	Manchester.
Adams, Ira H.	Derry Depot.
Aiken, F. J.	Pittsfield.
Allen, Bradford	Nashua.
Allen, Carl A.	Acworth.
Allen, George E.	Bradford, Mass.
Anthoine, I. G.	Antrim.
Atkinson, W. P.	Eaton.
Bancroft, Charles P.	Concord.
Bancroft, J. P.	Concord.
* Bassett, Thomas	Kingston.

Bean, J. W.	Lyme.
Bean, N. W.	Chichester.
* Berry, Ed. S.	Concord.
Berry, John J.	Portsmouth.
Blair, A. W.	Orford.
Blaisdell, Frank	Goffstown.
Blaisdell, George C.	Contoocook.
Blake, Chas. G.	Bridgewater, Mass.
Blake, W. P.	Farmington.
Boutwell, Henry T.	Manchester.
Boutwell, Henry W.	Manchester.
Brown, J. Frank	Manchester.
Brown, J. P.	Taunton, Mass.
Bridgman, Geo. H.	Elizabeth, N. J.
Brooks, N. G.	Charlestown.
*Burnham, A. C.	Hillsborough Bridge.
Burnham, Hosea B.	Epping.
Buswell, Albert C.	Epping.
Burns, Robert	Plymouth.
Butler, Jacob N.	Lempster.
Carbee, S. P.	Haverhill.
Carr, A. F.	Goffstown.
Carr, E. L.	Pittsfield.
Carter, W. G.	Concord.
* Carlton, C. A.	Salem, Mass.
Carvelle, H. de W.	Manchester.
Chase, W. D.	Peterborough.
Chamberlain, D. T. P.	Dover.
Child, William	New Hampton.
Chesley, A. P.	Concord.
Clark, Levi	Loudon Ridge.
Cogswell, J. R.	Warner.
Conn, G. P.	Concord.
Cook, George	Concord.
Crosby, G. A.	Manchester.
Crittenden, R. A.	Haverhill, Mass.
Cummings, A. R.	Claremont.
Cummings, H. C.	Concord.
* Currie, T. H.	Lebanon.
Currier, E. H.	Manchester.
Currier, D. M.	Newport.

Cutler, John H.	Peterborough.
Cutter, George I.	West Swanzey.
Danforth, M. S.	North Weare.
Davis, James A.	Lebanon.
Dearborn, D. S.	Milford.
Dearborn, S. G.	Nashua.
Dinsmoor, S. M.	Keene.
Dinsmore, W. H.	Milford.
Dix, M. C.	Hinsdale.
Dodge, C. M.	Manchester.
Drake, C. B.	West Lebanon.
* Eastman, J. C.	Hampstead.
Eastman, O. D.	Woodsville.
Eaton, Frank	East Weare.
Emerson, A. L.	Chester.
Emery, Alfred E.	Penacook.
* Evans, Earl	Winchester.
Fairbanks, Chas. A.	Dover.
Felt, M. H.	Hillsborough Bridge.
* Fenner, A. G.	Dover.
Fisher, E. C.	Sunapee.
Fisher, F. P.	Enfield Center.
Flanders, Chas. F.	Manchester.
Foster, T. S.	Laconia.
Fowler, H. B.	Bristol.
French, Edward	Concord.
French, Henry M.	Concord.
* French, Leonard	Manchester.
French, L. M.	Manchester.
Frost, Carlton P.	Hanover.
Frye, Edmund B.	Plaistow.
* Gage, Charles P.	Concord.
Garland, Wm. R.	Campton Village.
George, Charles F.	Goffstown.
Gibson, Charles R.	Woodsville.
Gould, True M.	Raymond.
Goodhue, D. P.	Springfield.

* Goss, Oliver	Lake Village.
Goss, O. W.	Lake Village.
Gould, Chas. R.	Tilton.
Gove, Geo. S.	Whitefield.
Grant, L. E.	Great Falls.
Graves, E. E.	Boscawen.
* Graves, F. W.	Woburn, Mass.
Gross, Chas. W.	Milton.
* Hall, J. F.	Portsmouth.
Ham, J. R.	Dover.
Hammond, C. B.	Nashua.
Hanson, C. W.	Northwood Ridge.
Harmon, M. A.	Ossipee.
Hatch, G. W.	East Wilton.
Hayes, John A.	Somersworth.
Hazelton, G. W.	Raymond.
Hill, L. G.	Dover.
Hiland, Thomas	Concord.
Hoitt, Geo. C.	Manchester.
Holbrook, Guy	Colebrook.
Holbrook, Henry C.	Penacook.
Houghton, E. F.	Claremont.
How, L. B.	Manchester.
Hutchinson, H. S.	Milford.
Jackson, Joseph A.	Manchester.
Jarvis, Leonard	Claremont.
* Jarvis, S. G.	Claremont.
Jones, D. W.	Portsmouth.
Jones, F. P.	Mill Village.
Jones, Fred. W.	New Ipswich.
Judkins, F. L.	Lynn, Mass.
Junkins, William O.	Greenland.
* Kelley, C. K.	Plymouth.
Kimball, George M.	Concord.
Kimball, J. R.	Suncook.
Kingsbury, C. F.	Lyme.
Lanouette, Joseph E. A.	Manchester.
Larabee, G. H.	Suncook.

Lathrop, M. C.	Dover.
Lee, Henry H.	West Stewartstown.
Lemaitre, Joseph E.	Manchester.
Leet, George C.	Canaan Street.
Leonard, Wm. S.	Hinsdale.
Lougee, George W.	Freedom.
* Lougee, I. W.	Rochester.
* Manahan, Val.	Enfield.
Manchester, C. W.	Lebanon.
Manchester, Frank	Enfield.
Marble, Henry	Gorham.
Mason, G. L.	Meredith.
Mason, J. E.	Manchester.
* Mason, W. H. H.	Moultonborough.
Megrath, Wm. A.	Loudon.
Merrow, A. D.	Freedom.
Mitchell, Ezra, Jr.	Lancaster.
Morse, Charles A.	Newmarket.
Moffett, Frank T.	Littleton.
Moody, William B.	Franconia.
Morrill, S. C.	Concord.
Munsey, G. F.	Greenville.
Nelson, D. B.	Laconia.
Newell, Henry E.	Derry Depot.
Nichols, C. B.	Franklin Falls.
Nute, W. H.	Farmington.
O'Brien, C. C.	Groveton.
Odell, J. W.	Greenland.
Otis, E. O.	Boston, Mass.
Palmer, Haven	Plymouth.
* Parker, David T.	Farmington.
Parker, H. R.	Dover.
Parsons, John W.	Portsmouth.
Pattee, Luther	Manchester.
Patten, J. L.	Washington, D. C.
* Peabody, L. W.	Henniker.
Perkins, F. B.	Londonderry.
Pettingill, James B.	Amherst.

* Phillips, B. H.	Suncook.
* Pike, C. C.	Peabody, Mass.
Porter, W. B.	Walpole.
Powers, G. H.	Hopkinton.
Pray, J. W.	East Northwood.
Pray, T. J. W.	Dover.
Preston, J. W.	Great Falls.
Prouty, Ira J.	Keene.
Rand, W. H.	Lowell, Mass.
Randall, F. D.	Hooksett.
Raynes, J. B.	Bradford.
Richardson, A. P.	Walpole.
Roberts, S. W.	Wakefield.
* Robinson, A. H.	Concord.
Robinson, John F.	Manchester.
Robinson, J. L.	Manchester.
Russell, J. Wallace	Concord.
Russell, M. W.	Concord.
Sanborn, C. A.	Newport.
Sanborn, G. H.	Henniker.
* Sanborn, J. A.	Plymouth.
Sanborn, J. H.	Franklin Falls.
Sanborn, T. B.	Newport.
Scott, N. H.	Wolfeborough.
Sleeper, W. J.	Westford, Mass.
* Smith, J. Ranlet	Gloucester, Mass.
Smith, M. F.	Epsom.
Smith, W. A.	Campton Village.
Smith, W. T.	Hanover.
Scruton, J. E.	Union.
Stackpole, P. A.	Dover.
Staples, J. W.	Franklin Falls.
St. Germain, Joseph P.	Manchester.
Stillings, F. A.	Concord.
Stone, M. T.	Troy.
Sturtevant, C. B.	Manchester.
Sullivan, James	Manchester.
* Swett, J. L.	Newport.
Taft, A. H.	Winchester.
Tolles, C. W.	Claremont.

Towne, G. D.	Manchester.
Tucker, E. M.	Canaan.
* Twitchell, G. B.	Keene.
Underhill, George A.	Nashua.
Vittum, Stephen	Laconia.
Wade, E. A.	Salem Depot.
Wadley, W. K.	Hopkinton.
Walker, C. R.	Concord.
Wallace, Ellen A.	Manchester.
Watson, H. A.	White Riv. Junc., Vt.
Watson, I. A.	Concord.
* Waterhouse, William	Barrington.
Way, Osman B.	Claremont.
Weaver, C. A.	New Boston.
Weymouth, G. W.	Grafton.
* Weymouth, H. A.	Andover.
Welch, S. N.	Sutton.
* Wheat, Thomas	Manchester.
Wheeler, J. H.	Dover.
Wheeler, John	Pittsfield.
Wheet, John C.	Bristol.
Whittier, S. C.	Portsmouth.
Wilkins, W. W.	Manchester.
* Wilson, J. W.	Contoocook.
Woodward, J. N.	Nashua.
Young, Leander J.	Haverhill, Mass.

The second case was Mrs. R., a widow lady about sixty years of age and the mother of several children. She was attended by the two gentlemen who attended Miss W. in the former case. The case was a strangulated hernia, as large as a hen's egg. It was recognized early and treated persistently with fomentations of bitter herbs for several days, when Dr. Twitchell was called from Keene, who at once summoned me to assist him in the case. The operation was done at once under ether, and a mahogany-colored knuckle the size of an English walnut was reduced to its place. The patient rallied well, but died from mortification of the intestine on the third day.

The third case was a Mrs. W., a married lady, quite fleshy, about sixty years old, and the mother of several children. I was called by her attendant to assist in reducing a strangulated femoral hernia, which had been promptly diagnosed. The operation was done at midnight. In making a section of the tumor a nearly normal-colored knuckle the size of a chestnut was found, and quite readily reduced. The patient made a prompt recovery, and, with care, has not been inconvenienced since in consequence of her hernia.

The fourth case was a Mr. C., a man about seventy-five years old, quite spare in flesh and muscle. I was called by his attendant, about midnight, to assist in reducing a strangulated oblique inguinal hernia on the right side, which had been promptly diagnosed. Efforts at reduction by manipulation were made, but without success, when preparations were made for reduction with the knife, by the patient being laid upon the table and fully etherized, when, to our pleasure and surprise, the hernia was found to have entirely subsided, and well adjusted compression was all the treatment required.

The fifth and sixth cases were a Mr. B., a farmer about sixty-three years old, a hard-working, resolute, and determined man. In pitching hay from the cart to the mow he induced a small direct inguinal hernia. Strangulation soon followed, and I was called, and at once diagnosed strangulated inguinal hernia, to the supreme disgust of the patient, who vehemently protested, while "the Dr." insisted, and to compromise and save time a council was agreed upon, which was brought about at dark of

the same afternoon, when the diagnosis was sustained and an immediate operation advised, while the patient still persisted that he "wa'nt busted," and resisted, insisting that "the doctors didn't know nothing and would kill him." This state of affairs continued until about 11 o'clock, when the council informed the patient that their responsibility in the case would cease at midnight, at about which time the patient surrendered, and the operation was done under ether. A strangulated knuckle the size and color of a chestnut was found and returned to its place. The recovery was good, and would have been radical had not the patient persisted in sawing wood on the sixth and seventh days to "teach the doctor that he didn't know everything." But notwithstanding this, the patient suffered no further inconvenience, never wearing a truss, until five years afterwards, when pitching hay in the same place as on the occasion of the first rupture he induced a strangulation, and silently retired and died on the third day from its effects, fulfilling his threat that "the doctors should never touch him again."

The seventh case was Mr. W., a man seventy-five years old, who had for a long time suffered from a very large left scrotal hernia. On this occasion it had descended to the size of a quart measure and strangulated. I was called, and at once packed the tumor in ice, and, at the request of the family, called their former family physician, when, after ten hours under the influence of the ice, the council, by raising the lower extremities, were able to reduce the tumor by manipulation.

The eighth case was Mr. B., a man seventy-five years old, with a direct inguinal hernia, which had on several occasions become strangulated and been reduced by himself. On this occasion he failed in the reduction and I was called, and only after persistent and repeated efforts, succeeded in reducing the tumor by manipulation, or taxis.

The ninth case was Mrs. C., a widow lady of forty-five years of age, who had never borne children and was quite delicate. She had suffered for some time with a femoral hernia, which, about 2 o'clock one afternoon became suddenly strangulated, causing her extreme and persistent pain. I was called with council, and under the constant use of anodynes and fomentations she

obtained partial relief, but at 6 o'clock on the following morning the council found it necessary to relieve with the knife, which was done under ether, finding a large amount of omentum with a small knuckle of intestine. The operation was successful, but the patient died on the third day in consequence of the shock upon the delicate constitution.

The tenth case was Mrs. G., a French lady about sixty years old, with slight muscular structure and enfeebled health. I was called in the evening and found the patient with a tumor about the size of a dove's egg in the right inguinal region. It was direct, hard, fixed, and sensitive, and gave no impulse from coughing with occasional vomiting. I was rather uncertain in my diagnosis, but gave anodynes and ordered the continued use of warm flaxseed-meal poultices during the night, with anodynes repeated. On my return in the morning I found the tumor soft and without soreness, and readily reduced it to its place by taxis.

The eleventh case was a repetition of the above, which followed in about eight months. In lifting a pail of water from a well-curb Mrs. G. suddenly found her rupture strangulated, and I was again summoned, and by the assistance of a student, etherized her, and by flexing the thighs on the abdomen, readily reduced the tumor by taxis.

The twelfth case was Mr. H., a strong, muscular man about seventy years old. In lifting a sleigh to the high beams he induced a direct inguinal hernia, which by failure of prompt attention became strangulated. On being called, I quite readily reduced the tumor by taxis with a few warm fomentations and flexion.

The thirteenth case was a repetition of the above, in three months. In piling barrels of apples, Mr. H. suddenly induced his old rupture, which at once became strangulated. On being called I found him in severe pain, which was soon quieted by a hypodermic injection of morphia and belladonna, which, with its relaxation, with warm fomentations, and flexion, soon assisted in the reduction by taxis, since which time the patient has redeemed his former pledge "to be more careful."

The fourteenth case was a repetition of Case No. 8. Mr. B., on restrangulating his hernia, called his family attendant, who,

failing in reduction, called me to assist, and I immediately succeeded by taxis supplemented with flexion.

There is no great value in the report of these cases, except it may be in the conclusions which we may draw from a close analysis of them, which is expected from those present who are interested in the subject. Consequently the writer will be content with calling attention to a few points as they occur to him, and leave that part to those who are better qualified to discuss the subject.

In part 1st, cases Nos. 1 and 2 were simply uni and multilocular ovariotomies. The diagnoses were correct, the operations complete and successful, and the recoveries as good as the ages and general health of the patients would admit of.

Case No. 3 was complicated with cancer, and the question arises as to the abandonment of the case without completion. The reports of Brown, Wells, Fox, Peaslee, Kimball, and Thomas all quite fully sustain the ground of a complete operation in cancerous complications.

In Case No. 4 the circumstances appear to fully justify a complete operation, and the best interests of the patient and those interested would appear to have demanded a much earlier one. Not to have operated would have subjected the patient to a tedious and painful sickness and a certain and distressing death. In the operation she took all the chances of recovery with a comfortable and useful life. With an earlier operation the proportion of chances would have been increased.

In part No. 2, Case No. 1 is a striking example of the value of an acute knowledge of symptomatology, with a cheerful and prompt acknowledgment and conviction of mistakes.

In Case No. 2 there is a striking illustration of the danger of delays and the value of prompt and energetic action, especially when life is at stake.

Case No. 3 shows the value of an early diagnosis and prompt action.

Cases No. 4 and 11 show the value of ether in hernia, both in producing relaxation of the muscles and reducing contractility from irritation.

Case No. 5 is an exhibition of the value of determined and

prompt action on the part of the surgeon in dangerous cases, while Case No. 6 as clearly illustrates the danger of willful determination on the part of the patient.

Case No. 7 teaches that the application of ice, persistently continued, is of unquestionable value.

Case No. 8 proves that careful and continued taxis should not be abandoned too early for a more heroic display.

The lesson taught in the ninth case is that constitutional delicacy is a factor which should always be recognized in the surgeon's prognosis in operations following severe pain or shock.

Cases No. 10, 12, 13, and 14 exhibit the value of anodynes, fomentations, and flexion, when they are judiciously and carefully applied.

In addition to the above it only need be said that abdominal anatomy, ingenuity, and good judgment, supplemented with a fund of experience for reference, are the surest vouchers for success in abdominal surgery.

Dr. William T. Smith, of Hanover, in opening the discussion on the paper of Dr. Cutler, rehearsed briefly the history of ovariotomy, the operation which prepared the way for the brilliant achievements of the last ten years in abdominal surgery. This operation was first performed by an American, Ephraim McDowell, and Dr. Peaslee, a former member of this association and professor in Dartmouth Medical College, did more than any other man in America to establish the operation as a safe and legitimate one.

THE CONFIDENCE OF THE PUBLIC IN NON-PROFESSIONAL PRESCRIPTIONS.

BY W. S. LEONARD, M. D., HINSDALE.

Do we ever find the wisdom and experience of a theologian, lawyer, doctor, poet, artist, philosopher, or mechanic, wrapped up in one body? Probably not. Most men are content to follow a single profession, trade, or calling, attaining more or less proficiency in this, according to their talents and opportunities, and make no pretensions to a knowledge of any other. And so it happens that the average American citizen goes to his minister when he would learn of spiritual things, and not to one of the laymen; to the lawyer if he wants legal advice, and not to his neighbor or the newspaper; to the artist and sculptor for his works of art, and not to the stone-mason or the house-painter; to the skilled mechanic if he desires new machinery, not to the cobbler; to the draughtsman and architect if he would build a new house, not to the owner of a saw-mill. Why does he do this? Because he knows that these men have made a specialty of those things about which he knows comparatively nothing. It is evident he has no confidence in his own judgment or in the advice of other people whose knowledge is on a par with his own. This citizen gets sick sometimes; he visits his doctor for advice and medicine. Does he go with the absolute confidence which he places in the other crafts? Does not the machinery of the human body, a thousand times more intricate than anything ever invented by any human mechanic, call for the most exact learning and skill to repair it properly? But because life and its

germs are a mystery, because the cause of disease is often obscure and undefined, because many ailments are self-limited and recover without any treatment, and, more than all, because the world is full of "isms," "pathies," quacks, pretenders, gilded nostrums, and dabblers in drugs; for these reasons and others, this citizen comes to believe that in the most delicate of all arts he has some knowledge and judgment of his own, and, more than this, puts confidence in the advice and prescriptions of his neighbors and friends whose knowledge of medical science is co-equal with his own.

In speaking of the confidence of the public in non-professional prescriptions, I wish it distinctly understood that I have no quarrel with the home remedies of our mothers and our grandmothers, used from time immemorial in every household. In these days of high-sounding pharmaceutical nostrums, the very names even of those old remedies

> "Come back with a Sabbath sound as of doves
> In quiet neighborhoods."

We recall rhubarb and soda, mustard and ginger, flaxseed and elm bark, the infusions of thoroughwort, tansy, and pennyroyal, peppermint, spearmint, and motherwort — motherwort of which an old Connecticut Valley practitioner said forty years ago, "Every woman ought to make a courtesy to each sprig of motherwort she sees growing, it does her so much good"; then there was the antique bottle of paregoric, suspended by a string from a nail in the pantry-shelf, and the castor-oil and sulphate of magnesia, which were the attendants of our boyhood; indeed the old nurses "builded better than they knew" when they gave the dose of sulphate of magnesia for a threatened dysentery, for a later experience has taught the profession that many a case of dysentery must have been aborted in this way which would have "gone to the bad" with the calomel, opium, and acetate of lead, of the old-time physicians. I have not mentioned a tithe of those ancient remedies, all of them harmless, wholesome, curative, and in skillful hands doing great good. Those were common-sense remedies, and no household was properly equipped without them. In these latter days the great public is fast drifting

away from the faith of "the fathers," and is ballooning in the upper air with all sorts of compounds, proprietary and otherwise, for ballast, medicaments of whose constituents they know absolutely nothing save this, that they are warranted to cure; and so the old Latin adage repeats itself, "*Omne ignotum pro mirifico.*" It is to bring this error of the times more prominently before this Society that the subject of non-professional prescriptions has been selected, and if it may appear that prescriptions and their sources are discussed rather than public confidence in them, it is to be understood that this confidence and blind faith are at the root of them all, giving them vitality, scope, and growth.

People are apt to take a good deal of stock in whatever they read in their newspaper, especially if it is on the right side politically, and is, moreover, the family paper. From this source is launched upon the public weekly and daily an avalanche of non-professional prescriptions sure to entrap somebody. Leaving out of account the glowing advertisements of the quacks, you will find in every paper you take up some wonderful cure-all brought into notice, and some newspapers devote whole columns especially to this department. These prescriptions are of all degrees of absurdity, some of them containing valuable remedies used by the profession, but so twisted and distorted out of their proper sphere as to be a positive damage to the consumer; others are conspicuous only by their grotesqueness and absurdity. But people try them all the same; they have confidence in them, for did they not read it in the newspaper? Take a single example: A few years ago an item purporting to be a sure remedy for diphtheria was published in some city journal. It read something as follows, though I cannot give the exact language. Says the anonymous writer: "When I was in England a few years ago, I was invited by an eminent practitioner, Dr. Field, to visit with him some patients suffering with diphtheria. I was amazed at the simplicity of the doctor's treatment: he put a teaspoonful of sulphur in a wineglass of water, giving directions to stir it with the finger and use as a gargle frequently, and to swallow a little of it; he also put a small quantity of sulphur in one end of a quill, directed the patient to open the mouth, and then blew a portion of the powdered brimstone directly upon the parts affected, and,

behold, the false membrane was at once destroyed, and the patient was on the high road to health. This constituted the entire treatment, and the doctor informed me that in a practice of many years he had never lost a single case." This amusing little paragraph (which I am aware I have not quoted very correctly) blossomed instantly and bore fruit. It was copied into all the papers from Maine to California, and you and I and all of us have scores of times found, at our first visit, the little glass half filled with the nauseous mixture upon the stand in the sick-room, with the quill and the paper of sulphur hard by, and on inquiry have learned that the patient had been put through a course of brimstone treatment before calling the doctor, because it was such a sure remedy and so much had been said about it in the papers.

In rural communities, especially, it is quite the fashion for everybody to feel a great interest in any cases of sickness occurring in the vicinity, and if the malady be lingering or chronic in its character, it is usual for the neighbors to make suggestions in regard to the treatment, diet, etc., of the patient, supplementing the doctor's visit with such advice and counsel as seems to them good and wholesome, feeling all the time that they are only performing a duty by so doing. If the invalid is a public character, and occupies a high position in church or state, the prescribing is, of course, more wholesale in its character, and finds vent in a multitude of letters sent to the afflicted family or to the physicians in charge, urging and praying that a certain sure remedy or safe treatment shall be tried. The prescriptions and plans of treatment poured in upon the attending physicians of the late General Grant counted up into the thousands, most of them well-meant tributes of injudicious, ignorant people, who fondly imagined they had discovered some marvelous remedy that would restore to health the great commander. There can be no more striking example of the confidence of the public in non-professional prescriptions than the incident I have just quoted.

This same desire to prescribe permeates all neighborhoods and communities to a greater or less degree. Did you ever know a person suffering from ophthalmia who did not have a dozen remedies thrust upon his notice every day, all reputed to be good for

"sore eyes"? It is an alarming fact that many eyes are injured beyond recall by the injudicious application of strong astringent washes and lotions, which the oculist would have restored with rest, boracic acid, and atropine. The more delicate the organ the more recklessly the neighbors prescribe for it, and the human eye has always been a favorite target for non-professional prescriptions, especially in the country places where an oculist cannot easily be reached.

A mischievous and often dangerous kind of non-professional prescribers are found among a class who claim to be half doctors. Not unfrequently a patron will detail to a physician a plan of treatment he has been taking, and conclude with the remark, "You know I am more than half doctor myself." Some of these hybrids have some time or other attended a single course of medical lectures, or lived with a doctor in youth, taking care of his horses and driving for him, it may be. In almost every community you will find one or more of this genus; they go among the sick a good deal, some of them are really intelligent nurses and have the elements of a good make-up, so far as common sense is concerned, in most things, but with just knowledge enough of medical science to make them imagine they know it all, with a skepticism in regard to well-known and recognized remedies, a distrust in the doctor's skill and judgment, they render themselves hindrances and stumbling-blocks in the way of rational medication. Yet the public has a certain kind of confidence in such people and will listen and be guided by their opinions and suggestions, making as an excuse for so doing that they are "more than half doctors."

Clergymen, I am sorry to say, often piece out their sacred calling with a flowery superstructure of medical odds and ends and prate to their parishioners about diseases and treatment "in words of learned length and thundering sound." Through them the thoroughbred quacks reap a rich harvest. We have only to take up any secular or religious newspaper in order to find the names of one or more eminent divines tacked on to the tail end of some specious medical humbug as references. Isn't it very natural that the laity should have confidence in the advice of their minister? Is he not educated far beyond the opportu-

nities of the busy public? But a man may be a sound theologian and yet a very poor guide in temporal matters; he may be able to read Hebrew fluently and yet know little or nothing about nature's laws as applied to the human body. I am glad to say that these remarks do not apply to the majority of the clerical profession. I always had a great admiration for a good old minister of my acquaintance who said that he had rather die in the hands of an educated physician than be cured by a quack. With him it was a matter of principle.

To the half doctor and half educated people in any profession, Pope's famous couplet has a special application:

> "A little learning is a dangerous thing,
> Drink deep, or taste not the Pierian spring."

No small amount of non-professional prescribing is done by the commercial travelers, — drummers we call them in common parlance. It is unusual for a man who travels for a city firm not to have one or more recipes in his pocket, sure cures for a majority of "the ills which flesh is heir to." In his peripatetic wanderings from store to store he sows them broadcast, "without money and without price." "Only try it; it cured me, cured my friend, cured lots of people given over by the doctors!" We are all of us moderately well acquainted with the make-up of these very smart and exuberant gentlemen. We step into a dry-goods store and observe one of them standing in a contemplative attitude near the counter, in faultless Prince Albert coat, hat off, pencil and note-book in hand, looking as if the weight of nations rested on his shoulders. A patient consults you in his hearing in regard to some ailment, — rheumatism, for example. You give the required directions and depart, but no sooner are you gone than up pops the irrepressible drummer, buttonholes your patient, and says, "My dear man, I beg pardon, but I can tell you what will cure you. These doctors are old fogies. Try the prescription I have in my pocket, and you will be cured, you and your house." And he follows up this salutation with a voluble string of arguments and representations so plausibly set forth that the perplexed and wondering invalid, if he has not a strong mind of his own, is easily persuaded to put confidence in these specious

promises. Of all the non-professional men these commercial travelers have the most "cheek." They not only prescribe, but sometimes furnish medicine, and it is not at all uncommon for several persons in the same neighborhood to be taking a wonderful kind of pill for rheumatism or neuralgia, made in Boston or New York by some ignoramus who fondly imagines he has discovered a great and life-giving remedial agent, and is anxious to bring this priceless boon within the reach of suffering humanity. Think of a dry-goods drummer walking into a physician's office in company with the husband of a lady patient suffering from gastralgia, and coolly informing the astonished disciple of Æsculapius "that he had asked the privilege of coming in with Mrs. So-and-So's husband in order to tell the doctor that the case was not being properly treated, and that unless such and such a remedy was used the patient would probably die." Was not this the very acme of pure, unadulterated "gall"? And yet this incident occurred in the practice of a physician of my acquaintance; and what is more astonishing, the latter had such wonderful self-control that he actually refrained from kicking the impudent pretender into the street. Examples of this sort of non-professional prescribing might be multiplied, for they are familiar to all of us, and still the public puts more or less confidence in these oily-tongued travelers, and more times than we ever know tries their reputed cure-alls most religiously and faithfully.

Acute diseases are not so much the forte of the amateurs as the chronic, the lingering maladies, but if any acute disease happens to be rampant in a particular locality, especially if it has some novel features or a new name, here is a rich field for meddlesome medication at the hands of outsiders. For example, a great many sure cures are in vogue for the treatment of diphtheria, Bright's disease, schirrhus of the epithelial variety, etc. Malaria has received a good deal of attention from the laity since it gained a foothold in our northern clime, and countless are the specifics ordered for the sure banishment of this new foe. It is curious to observe that all or nearly all of them when sifted are found to contain quinine or one of its alkaloids partially concealed in some nauseous vehicle, the concealment to the practised taste being about as complete as that of the ostrich which, when in danger,

hides its head in the sand and imagines that it is safe from its pursuers. But of all diseases, acute or chronic, rheumatism is the most shining mark for non-professional advice and treatment. It is said there are at least eighty sure cures, and it is useless to attempt to enumerate the host of liniments and embrocations, the syrups, pills, and draughts that a confiding rheumatic will anoint himself with and pour down his throat, beguiled into confidence by promise of a speedy cure. It is the commonest thing in the world for a physician to be summoned to attend parties suffering from rheumatic carditis, and be able to trace the heart lesion directly to injudicious external applications which have caused metastasis to a vital part. It is found that of almost all the fashionable rheumatic mixtures the basis is colchicum. It sticks out in the mysterious pills; it is apparent from its cathartic effect in the liquid preparations; it enters largely as an ingredient into all the proprietary nostrums. The iodide of potassium too plays an important part, and it is strange how potent these old remedies, used from time immemorial by the profession, become when decked out in fantastic garb to restore to health patients who had gone the rounds of treatment, "suffered much from many physicians, and never were cured." Hearing not long ago of a new and original remedy for chronic rheumatism, which was working miraculous cures in a certain locality, I took pains to get a glimpse of the formula, and its originality and freshness were astonishing. It was as follows: R iodide potassium, forty-five grains; fluid extract colchicum seed, one ounce. Mix. S. Five to ten drops three times a day. Indeed, it is the old remedies, festooned and wrapped up in a drapery of mystery — weapons stolen from the doctor's saddle-bags, that work these famous cures, but the public would not believe this if it were stated under oath.

There is a fashion, too, in prescriptions among the ladies. A few years ago it was bromide of potassium, which was extensively used for its power to quiet irritable nerves and bring about "tired nature's sweet restorer, balmy sleep." Bromo-caffeine is a specific for headache much prescribed by "Blanch and Sweetheart." Pepsin and its compounds, lactopeptine, wine of coca, beef, wine and iron, Fellows's hypophosphites, are all prescribed non-pro-

fessionally a good deal; if a lady hits upon anything of this kind that happens to do her good, her "dear five hundred friends" must all try it, no matter if their ailments are diametrically the opposite of her own, and so it is often the case that whole communities, i. e., the female portion, will have a craze for some patent medicine—Lydia Pinkham's, for example—through the advice of a nervous invalid who had found fancied relief in "the greatest friend of woman," and is anxious that all her friends should be cured likewise. It does not often happen that our modern quacks achieve immortality in verse, but "the greatest friend of woman" will go down to posterity embalmed in a single line of the centennial poem of Dr. Holmes at the one hundredth anniversary of the Massachusetts Medical Society; it is as follows:

"Fair Lydia greets us with astringent smile."

"To have your name mentioned by Gibbon," says Thackeray, "is like having it written on the dome of St. Peter's. Pilgrims from all the world admire and behold it."

Do these non-professional prescriptions ever do any good? Undoubtedly, but oftener great harm. A sick person will take a remedy ordered by some friend with the strong assurance that it cured the latter, in a most receptive frame of mind, with absolute faith in its healing properties, follow directions however absurd to the very letter, and in many instances the language of scripture is verified in a sense unthought of by the great Master. "Thy faith hath made thee whole."

I do not wish to seem wanting in that respect which the physician should always have for the experienced apothecary, for he should be one of our best friends and co-laborers. Dr. Watson, in his admirable Practice, acknowledges his indebtedness to them more than once. When speaking of the disease called tic-douleureux, he says, "Some years ago I was instructed by an experienced old apothecary that this faceache might be almost always and speedily cured by the muriate of ammonia, a medicine that we seldom give internally here, though it is much used in Germany, and I have again and again availed myself of this point and been much thanked by my patients for the good

I did them with this muriate of ammonia." Dr. Holmes, in his speech at the dinner recently given Mr. Theodore Metcalf by the Boston Druggists' Association, in his own inimitable way, makes it clear to us that he thinks apothecaries know a good deal. "I have always," he says, "had a great opinion of the medical advice of apothecaries. The truth is, they put up the prescriptions of all the best physicians in the place in which they live, and they have the cream of all their wisdom at their fingers' ends. So, when I have myself been suffering from any slight bodily inconvenience, I am ashamed to say, or ought to be perhaps, instead of going to a professional brother, I have quietly crept into the back room and asked Mr. Metcalf what such and such a doctor was in the habit of prescribing."

I think we are all willing to acknowledge our indebtedness to the apothecary. We drift towards his store in our leisure moments as naturally as a duck takes to water. He always has a warm corner for us, his choicest cigars are at our pleasure, he sends us patients who are inquiring "for the best doctor in the place," and puts up the subsequent prescription with a thankful heart; he refreshes our limited knowledge of chemistry and the incompatibles; he gently corrects us when we would combine glycerine and permanganate of potassium in a single prescription; he eliminates such little errors as five grains of morphia, in place of a like quantity of quinine for a single dose; he is one of the doctor's best allies and helpers. But is it not a fact that, — in these illuminated days, when the drug stores are crowded full of quasi-pharmaceutical nostrums, and their shelves fairly bristle and glisten with peptonized cod-liver oils, pancreatic emulsions, calisaya cordials, extracts of malt, and a myriad more of the same ilk, to say nothing of the out-and-out humbugs and safe cures, whose names are legion, — there is a deal of "prescribing across the counter" that is non-professional; a good many people with really serious ailments going to the apothecary every day and buying these fantastic panaceas when they are in need of a careful examination and intelligent treatment at the hands of a physician; and, what is worse, drug clerks of limited experience feel themselves competent to prescribe in the absence of their superiors, and patients often have more confidence in their skill

than in the ability of their family doctor. For example, the primary treatment of certain diseases, notably gonorrhœa, is often intrusted to apothecaries and drug clerks, with implicit confidence in their knowledge, and they compound for the sufferer the stock prescription of balsam and nitrous ether, arm the invalid with a very sharp-pointed syringe and a solution of sulphate of zinc, and send him on his way rejoicing. If the case goes on badly, the doctor is consulted as a dernier resort. Very many of the strictures and gleets which men carry round with them — a life-long blight and injury — can be traced back to injudicious treatment in the beginning, at the hands of incompetent persons, non-professional prescribers, to whom it never occurred that each case ought to be treated *per se*, and not *ad libitum*.

It is quite common also in these days for each apothecary to compound a certain number of specifics of his own, — cough syrups, iron tonics, blood purifiers, and the like, — and is it not the most natural thing in the world that he should recommend them and urge their sale? The public seem to have faith in these medicines. "Such and such a remedy cured my aunt of a catarrh after she had consulted many doctors in vain, *ergo* it will cure everybody who ever has had or will have catarrh."

If anything can be inferred from the tone of the medical journals, there are signs of a storm brewing between the physicians and the apothecaries, on account of these very irregularities I have been discussing. There certainly is urgent need of reform, and doctors and druggists could legislate among themselves with advantage to each.

When reading a treatise on some particular disease we are apt, especially if we have a case in hand, to skip over the pathology and turn to the diagnosis and treatment, and we are usually disappointed at the meagreness of the latter. Instead of new formulæ and original plans of treatment, we find old methods and standard remedies emphasized and dietetic rules given the greatest prominence. So, in seeking a remedy for this crying evil of non-professional prescribing, it is easier by far to give the etiology and pathology of the disease than to suggest any new cure.

Are not the physicians themselves partly to blame for this state of things? Is it not true that those of us who have been for

many years in active practice have come to regard the minor ills of humanity as of little account. We spend our energies upon the severe cases, the typhoid fevers, the pneumonias, the grave surgical operations, and give only a passing thought to the ills of scores of people who call to consult us daily for unimportant troubles, which, however, are in the mind of the patient of the gravest character. How often it happens that a patient comes into your consulting-room with what seems to be a trifling disability; you glance at the case hurriedly, order a placebo, an opiate very likely, and dismiss the case forever from your mind. But the patient is not so easily disposed of; the next day he is no better, and, provoked at your indifference, instead of coming again, he falls in with some non-professional prescriber, who tells him just what to do and what to take, and so impresses upon his mind the certainty of relief that with unbounded faith he follows directions and is cured straightway. Will this patient come back to you again? Not a bit of it, but he will forever after sing the praises of the marvelous compound that cured him, and be very sure that all his friends and neighbors will hear about it too.

Said a patient with a lame knee to an old doctor, whom he had tried in vain to interest in his case, and obtain advice and treatment: "Doctor, it has come to this, that a man must come to you with his shroud in his hand before you will do anything for him." We should remember that the physician's life, like the lives of the rest of mankind, is made up of trifles. Every case presented for our consideration should receive careful personal examination and attention, however insignificant it may seem to be, — each patient should feel that something is going to be done to make him better, and in this way alone the mission of the non-professional prescribers and quacks will fail of its perfect work.

It comes within the sphere of the physician not only to practise his profession, but to be an educator of the community, ever striving to bring about more correct ideas of the true worth of medicine and to eliminate so far as possible from the minds of the public a superstitious faith in the supernatural power of drugs. It was a remark of the late Dr. Peaslee "that you can-

not reason a man out of anything that he never was reasoned into." The waves have rolled over the non-professional prescribers and professional invalids of this generation. They will no doubt go on prescribing to the end of the chapter. "Ephraim is joined to his idols, let him alone." But I believe that much might be done towards educating the young in regard to the proper office of medicine, by a judicious treatise on the subject, introduced as a text-book in our public schools.

An eminent professor used to say that when lecturing on diseases of the heart, he was sure to be called upon by one or more anxious students who were fearful that they had some symptoms of the lesions described. So children and youth in our public schools, when the subject of anatomy and physiology is under consideration, are apt to be a good deal impressed with some of the facts and anecdotes therein stated; they talk among themselves about that wonderful humbug, the stomach of Alexis St. Martin, give their parents and friends hints at the dinner-table respecting diet and the proper mastication of food. The model common-sense text-book on hygiene is yet to be written, but is it not possible to compile a book for use in our schools, written in plain common-sense yet attractive language, omitting the dry details of anatomy and physiology, or at all events retaining just enough for a general knowledge of important facts, for this is all scholars ever remember? and in this text-book aim to impress upon the minds of the young the fact that medicine *per se* has no miraculous power, that it does not usually cure disease, but assists nature to repair, — that the majority of the quack nostrums are made from impure drugs, and are particularly made to sell, — that each case of sickness is unlike every other, and requires the remedy adapted to that case, and more than all, give prominence to the central thought that we should be slow to take the advice and follow the prescriptions of people who have no knowledge of the science of medicine. By example, by illustration, and anecdote you can stamp this fact upon the mind of the scholar, so that he or she will never forget it, and so it will happen that when sickness comes to one of these young people, and the neighbors flock in with their bottles of cordial and matchless sanatives, and the air is full of non-

professional advice and prescriptions, the young person will say to the parent: "I have not been to school for naught. My text-books have taught me that the human body is the most intricate piece of machinery in the universe. It has also taught me that people who know nothing of medical science often do great harm by attempting to repair this wonderful machine with tools of whose uses they are profoundly ignorant. Now, if I am sick and need medicine and treatment, call in a physician and let us be guided by his advice." The parent will grasp the child's meaning when once such a plan is presented; it will come as a revelation to many, for very likely it has never entered the mind of this average American parent that study and skill are needed to prescribe intelligently for any disability, however trifling, or that the prescription of "Tray, Blanch, and Sweetheart" are not just as potent as the medication of the doctor.

In these random sketches I fear I may have seemed cynical and disposed to underrate the intelligence of the public, as a whole, just as one of old was led inadvertently to remark, "I said in my haste all men are liars." It is a comfort to know that a large percentage of our patients have clear ideas on this subject; that they avoid non-professional remedies, steer clear of the charlatans and quacks, and when they are sick follow to the letter the advice and directions of their attending physician. It is this that helps to make the physician's vocation a noble one, gives it rank and character, to be honored and trusted in times of danger and peril, when life and death are evenly balanced in the scale. Every physician in active practice can point with an honest pride to scores of families to whom it is a pleasure to minister in sickness, so fully and completely are his directions and plans of treatment followed out, and it is only because all along a doctor's pathway are scattered such thorns and brambles as grow out of the well-meant but mistaken zeal of non-professional prescribers that this paper has been written, in order to bring this evil, not always a minor annoyance to the profession, in its true light before this Society.

The physician should be an educator, a leader in society so far as his particular calling is concerned, not a blind follower of

others. He should aim to be recognized as a doctor by some other insignia than "the hay-seed in his hair"; he should not be "cabined, cribbed, confined" by any "ism" or "pathy," by any creed or dogma; he should never be content to stand by the wayside and keep time while the grand procession of progress and reform goes by, but fall into line and march in the front rank; he should be keenly alive to the beneficent influences of light, fresh air, and wholesome sanitary laws and regulations. A bright, alert, conscientious physician will, in a generation, do a great work in educating medically the community in which he dwells, rendering its people more conversant with the immutable laws which govern "the house they live in,"—the rational treatment of disease, and the true aim, scope, and value of medication.

ADDRESS BEFORE THE MEDICAL GRADUATING CLASS.

BY G. D. TOWNE, M. D.

Mr. President, Ladies and Gentlemen, and Fellows of the Graduating Class:

It is with considerable trepidation that this address is presented to you. The mental deportment of the examinations of this class is sufficient guarantee that what may here be said will not be necessary for your further edification. It is hoped a review of a few thoughts as suggested by the experience of an ordinary beginner may be of service, inasmuch as the medical course of lectures is so pressed for time, that, aside from strictly medical knowledge, only a cursory glance can be devoted to some of the simpler trials of the commencement of practice.

First, and emphatically foremost, comes the question of location and necessary preparation for your future life, and a most momentous one it is. Do not seek a field where the principal inducement offered is lack of competition, but choose a place you will be content to make a home, whether it be town or country. Every change in location is detrimental to progress, therefore use your best judgment as to the place which is to take so important a part in your future. And it is your own judgment that you must follow, for the opinion of the laity as to the desirability of a location cannot be depended upon.

Having chosen your field of practice, an equally important element in your future success is the impression you make upon those about you. Let your actions be above suspicion. Be

always guarded of your behavior. "Manners," said Emerson, "are very communicable; men catch them from each other." You, in your varied associations necessary as a practitioner of medicine, will not always be placed where surroundings tend to elevate. More, as a physician, you are a public character; your manners are always under inspection, and your power for good or evil is proportionally great as you become prominent. Hand in hand with behavior—equally important and gratifying—is honor.

Never for a moment forget the duties devolving upon you. Every person whom you undertake to treat, is an especial charge in which no man, outside your chosen profession, has the same responsibility. The loss of a life through carelessness is alike culpable in the doctor as in the railroad employé.

Respect professional secrets. A garrulous tongue will cause more trouble and distrust than errors in judgment. It will require a great deal of tact to keep the inquisitive questioner from knowing your business, and if you are not successful, your professional life will certainly be a failure.

No code of ethics need be studied to teach you the duties you owe your fellow-practitioners. Your own sense of justice will be a sufficient guide in all of your doings. Above all things avoid a slandering tongue. It will invariably react to the injury of the slanderer. Honor your fellow-practitioner; especially if he be your senior in years, respect his opinions, and enter into professional discussions in a deferential spirit. Your own individuality need never suffer by this courtesy, and your arguments will be strengthened by your gentlemanly bearing.

Be charitable, but consider what charity is. Never turn a deaf ear to the appeal of a deserving sufferer who is in need of your services. On the contrary never encourage the mendicant who always will liberally endow you with blessings, by the wishes of a reward in heaven, for as soon as he can judge he has abused your generosity to about its limit, he will "change doctors," and he will consider it his duty to himself to inform his neighbors that he had good reasons for making the change, much to the detriment of your standing. Again, if you have a friend consult you professionally, you will make a mistake if you decline

your legitimate fee. That may seem to be very miserly, but if your friend consults you out of respect for your ability to aid him, he will willingly pay for your services; yes, he will place more value upon them if you take it. But if you are consulted out of compliment to friendship, the advice is slightly heeded, and should not immediate relief follow the friend will consult one who commands his respect as a practitioner, and you will lose the friend's good will, where, had he paid for your services at first, he would have felt privileged to return.

Beware of relying upon consultations, or depending upon other practitioners for diagnosis and treatment. While a consultation should never be ignored when necessity demands it, a too frequent resort to the advice of others soon begets a lack of confidence in one's own ability, — a most deplorable condition in a doctor — besides it caters to indolence, because it is so much easier to have some one else solve a problem.

Never forget that your chosen life, if success be deserved, is essentially the life of a student. To avoid consulting authorities, fearing that if it be known you will be thought deficient in knowledge, is a mistake; and sending away a patient with a placebo until such time as you can study the case in private is wronging the confidence of the patient, and does not benefit the prescriber. Formerly a practitioner of medicine of long standing was almost universally chosen because of his experience. You know it was Dr. Oliver Wendell Holmes who wrote

> "Talk of your sciences? after all is said
> There's nothing like a bare and shining head;
> Age lends the graces that are sure to please —
> Folks want their doctors mouldy, like their cheese."

Fortunately we are not embarrassed to such a degree as was the generation of doctors before us, — by our youth. People feel that by the improved advantages given by our colleges and books, coupled with the honest desire to make a reputation, that the young man is competent and trustworthy, if he shows due regard for his patients by studious and thoughtful habits.

Do not restrict your studies to medicine alone. Literature and sciences that can be comprehended with ordinary care make

a man respect himself sufficiently to compensate for the time and labor spent.

Gentlemen, if there be any present in this class who have been induced to study medicine for the acquirement of wealth, you will find great peace in mind to drop the idea right here, or never commence practice. The proportion among you who will die rich from your medical labors is so small that each one can conclude he cannot be that successful person. You will receive sufficient remuneration to live, and live well probably, but as your income increases your expenses will increase. The fabuous incomes in medical practice you can hear repeated every day are, as a rule, myths.

The story is told of the Rev. James Patterson, of Philadelphia, that he once said in a circle of his brethren that he thought the ministers ought to be humble and poor like their Master. "I have often prayed," said he, "that I might be kept humble; I never prayed that I might be poor — I could trust my church for that!" You will be obliged, perhaps, to seek Divine aid to make you humble, but with the reverend you need never fear the temptations that come from wealth.

There is one subject that deserves your attention, that medical instruction in the past has almost entirely ignored; but yet it is of so much importance that the whole Materia Medica may be as equally laid aside as that. There is no established chair upon this branch in any college in this country, although at present there seems to be a growing demand that may soon command the respect due it. Heretofore professors of Materia Medica and therapeutics, appreciating the dependence of drugs upon dietetics for the successful battle against disease, have devoted a passing notice upon that topic, but could do no more. Their branches are so vast that the time given to a course of lectures is inadequate to teach their subject proper, so that therapeutical adjuncts like this have received but little attention. An enthusiastic writer in a recent medical journal says: "Medical practice may not be revolutionized, but it may be gradually modified by the prominence given to several hitherto neglected departments and the comparative neglect of others hitherto regarded as all important. Instead of dwelling at great length on cathartics, altera-

tives, and expectorants, an opportunity will be afforded the professor to discourse eloquently on aliments, hæmatics, and reconstructives. Instead of the headings Therapeutics and Materia Medica in the text-books, the student will read Dietetics, Therapeutics, and Materia Medica.

"Dietetics," says Dr. Roberts in a recent address, "covers more ground than any other branch of the healing art." Nothing can be truer. The eleven hundred and twenty-six diseases of the nomenclature all have one thing in common, they all reduce the patient; so do many of their remedies. Any practice which counteracts this tendency must certainly cover more ground than any other branch of the healing art. Here is a field of operation, an endless opportunity for experiment, a scope for investigation and discovery unlimited. It is lamentable that there is so much ignorance on this subject as is evinced daily by the variable directions as to the diet of an individual case by different reputable physicians. A true physician is chary about prescribing any secret remedy; but it has become the custom to recommend this or that proprietary food without much consideration. And why? Most of the prepared foods in the market have been unknown as to the proportion of ingredients used, some even of the ingredients themselves. They have been used chiefly because of the ignorance of the practitioner as to what was demanded, and the chemist has thereby profited by this ignorance. Large pharmaceutical houses have means of preparing these foods that physicians or households cannot equal, and great praise is due them for the enlightenment of the medical profession by the generous distribution of articles from pens of note; but it is lamentable for all that, inasmuch as the doctor has blindly allowed himself to be led as he would not think of doing in the dispensation of drugs.

It is within the memory of many here to-night that water was denied the patient burning with fever; that venesection was practised almost or quite to syncope; that tartrate of antimony entered the mouth of almost every ailing one, to be followed with a "cleansing dose of calomel." And what was done to counteract this depleting fever, and these still more depleting remedies? Those doctors who had sufficient moral courage

asked Divine aid to overcome the disasters they had forced upon the victim; others rested, consoled that medical science had exhausted its skill, and nature must take the responsibility of the result. Is it not strange that no one thought of the plan of trying to keep up the weakening system, instead of weighing it down still lower than the disease would pull it?

It may be said that this new interest in dietetics is a popular feature because it is fashionable — for everybody recognizes that fashion enters into medicine — that wealthy and influential firms have been pressing and advertising food preparations in conformity with this fashion, and like other hobbies it will die out. But that cannot be a reasonable conclusion. Although the subject of alimentation is as old as medicine itself — in fact, Hippocrates traced the birth of medicine to dietetics — such progress has been made in the knowledge of what nature demands in foods to recuperate the system, that the value of proper food is paramount to drugs. Such men as Weir Mitchell, Tom King Chambers, Bauer, Roberts, Fothergill, all recognizing the neglect of dietetics, are particularly interested in this subject to-day, and the results of their labor cannot but enlighten the profession and give an impetus to medicine, the like it has not received for years.

The chemical and physiological knowledge of the process of transformation of food into the elements of human economy in health is essential in the scientific solution of the problems of alimentation, yet the chemist and the physiologist cannot make fixed rules for disease. Infancy, manhood, old age, sex, national characteristics, habits of life, individual idiosyncrasies, are factors to be considered, together with the disturbed organ or system. Physicians are prone to judge the value of articles of diet by their action upon their own stomachs, a most pernicious and deceiving plan evidently. How often, too, is it, the doctor after particularizing as to directions for taking medicine, when asked what shall be given for nourishment, will reply, "Oh, any light food." Never for a moment does he consider what a disaster may follow that heedless remark through the ignorance of the nurse or friends. There are some diseases, like diabetes, typhoid, scarlatina, where a particular regimen is the plan of treatment

and medicine is held only as a reserve force. Of course when the treatment depends so much upon the diet, it would be criminal almost to ignore them, and as the laws of alimentation become more thoroughly understood so will dietetic errors in every disorder become more reprehensible. In the language of Stokes "the patient is cured by preventing him from dying," by supporting the system with proper foods and stimulants until the disease exhausts itself and the system rallies.

By calling your attention to dietetics it is hoped that you will give the subject your careful consideration during the leisure hours you will probably have subsequent to the decoration of your door by a "shingle." Although the literature devoted to it is not abundant, the quality, as a rule, is well worth your perusal, and while you may not consider it necessary to be both physician and nurse, it certainly is your duty to know what the services of a nurse are and whether they are properly performed.

Gentlemen, you have chosen the noblest work allotted to man. If you perform that work creditably, you will be the good Samaritan in the community where you live. Not without trials, disappointments, and hard work, but withal with a vivacious spirit that demands no rest and a peace in mind that passeth all understanding. May success attend all of your efforts. May public appreciation of your labor be generously bestowed upon you, and when that time comes when the deeds of a man are exhibited with the earthly remains, may the honest eulogy be closed: "He was a true physician."

In concluding these remarks perhaps no better words can be brought to your attention than the Hippocratic oath. Though this oath is not formally administered to graduates in medicine at this day, it is a moral law that should be taken mentally by each and every one of you. As here given it is a translation by Professor William S. Forbes, of Jefferson Medical College, and was incorporated in his introductory lecture at that institution this fall: "I swear by all the gods and goddesses, by Apollo, the physician, and Æsculapius, and Health, and All Heal, that I will keep this my oath and stipulation — to reckon him who taught me this art equally dear to me as my parents, to share my substance with him and to relieve his necessities, if required;

look upon his children as my own brothers, and to teach them this art, if they shall wish to learn it — and that by precept, lecture, and every other mode of instruction I will impart a knowledge of the art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that practice which according to my ability and learning I consider the best for the safety of my patient, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one, if asked, nor suggest any such counsel; nor will I conspire with a woman to destroy her unborn child. With purity and with holiness I will pass my life and practise my art. Into whatever houses I enter I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption. Whatever, in connection with my professional practice, or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge, thinking that all such should be kept secret. While I continue to keep this oath unviolated may it be granted to me to enjoy life and the practice of the art respected by all men in all times, but should I trespass and violate this oath, may the reverse be my lot."

REPORTS OF DISTRICT SOCIETIES.

STRAFFORD DISTRICT MEDICAL SOCIETY.

CHARLES A. FAIRBANKS, M. D., SECRETARY.

The Strafford District Medical Society held its seventy-ninth annual meeting at the American House, Dover, December 15, 1886.

The following-named physicians were present:

From Dover: Drs. M. B. Sullivan, P. A. Stackpole, T. J. W. Pray, J. R. Ham, D. T. P. Chamberlin, C. A. Fairbanks, C. A. Tufts, C. H. Horsch, L. G. Hill, A. N. Smith, E. W. Hodsdon, J. H. Wheeler, A. G. Fenner, R. G. Blanchard, Wm. Hale, M. C. Lathrop, J. G. Pike. Farmington: Drs. R. B. Foss, D. P. Cilley, Jr., J. Young, D. T. Parker. South Berwick, Maine: Drs. E. D. Jaques, C. M. Sleeper. Portsmouth: Drs. J. W. Parsons, S. C. Whittier. Rochester: Dr. I. W. Lougee. Lebanon, Maine: Dr. J. S. Parker. North Berwick, Maine: Dr. S. A. Nash.

The president, Dr. J. W. Parsons, of Portsmouth, being unavoidably absent at the opening of the meeting, Dr. S. C. Whittier was called to the chair.

The Council being absent, the chairman appointed as a new council:

Drs. J. S. Parker, Lebanon, Maine; L. G. Hill, Dover; I. W. Lougee, Rochester.

The chairman appointed the following committees:

On Nominations. — Drs. L. G. Hill, M. B. Sullivan, D. T. P. Chamberlin, Dover.

To Select and Assign Topics for 1887. — Drs. J. R. Ham, Dover; D. T. Parker, Farmington; P. A. Stackpole, Dover.

On Necrology. — Drs. A. G. Fenner, Dover; R. B. Foss, Farmington; E. D. Jaques, South Berwick, Maine.

The Council reported favorably upon the credentials of Drs. D. P. Cilley, Jr., J. Young, Farmington; E. D. Jaques, C. M. Sleeper, South Berwick; W. Hale, Dover; and they were unanimously elected members of the society.

Dr. C. Horsch, of Dover, read an interesting paper on "The Necessity of Burial Permits and Inspection of the Bodies of Deceased Persons."

Discussion then followed, in which Drs. Pray, Hill, Stackpole, Sullivan, and D. T. Parker participated.

Dr. E. D. Hodsdon, of Dover, delivered an oration, taking as his subject the "Use of Arsenic in Skin Diseases."

Dr. J. W. Parsons, of Portsmouth, arrived and delivered the annual address, on "Lithæmia and Biliousness."

Dr. M. B. Sullivan read a report on "Strangulated Hernia."

Dr. Hill, for the Committee on Nominations, reported as follows:

President — Dr. C. H. Horsch.

Secretary — Dr. C. A. Fairbanks.

Treasurer — Dr. C. A. Tufts.

Auditor — Dr. J. R. Ham.

Councillors — Drs. J. S. Parker, Lebanon, Maine; I. W. Lougee, Rochester; R. B. Foss, Farmington.

Orators — Drs. E. D. Jaques, D. P. Cilley, Jr.

Dr. J. R. Ham, for the Committee to Select and Assign Topics for 1887, reported as follows:

Dr. A. N. Smith, "New Remedies *vs.* Old Remedies."

Dr. P. A. Stackpole, "Medicine *vs.* Nature."

Dr. S. C. Whittier, on a topic of his own selection.

Adjourned at 2 o'clock for dinner, at the American House.

urine analyzed, and then she was sent home with a bottle of gentian and lime-water, and a letter written to her medical attendant stating that they were unable to find any disease, and were obliged to conclude that hysteria had much to do with her condition. After her return from Boston she began having a new doctor for every attack, hoping to get some relief; and as soon as she had tried all within reach, went back and took them over again. This is her history for the past eight or ten years, till she was admitted to the hospital on the date given above.

She was at once put on a light diet, the bowels regulated, and three days after admission was etherized, and the urethra forcibly dilated by means of a large steel sound and an ordinary dilator, and as soon as the finger could be entered, with that. In about thirty minutes the index finger entered the bladder freely. The fundus of bladder was pushed down by pressure on abdomen, and the interior carefully gone over with the end of the finger. It was demonstrated that the bladder contained no calculus, but on the middle of posterior wall there was found a villous growth about the size of a silver dollar, which bled freely on the slightest touch. A dull loop curette was passed in on the finger, and all this growth carefully scraped away. The urethra was then dilated with a wire dilator, and the bladder thoroughly washed out with warm carbolized water, bringing away all the growth with perhaps an ounce of blood.

The douche was kept up for about ten minutes, when the water returned perfectly clear. She was then put to bed, with warm fomentations to the vulva, and ordered bladder douches every six hours. On coming out of the ether, she was very nervous and inclined to violence, and required one dose of bromide of potash and morphia to quiet her. There was little or no swelling of the parts, and at the end of eight hours she urinated without the catheter, and did not require catheterization at all, neither was there incontinence of urine.

The day following the operation she began to menstruate, and the bladder douches were reduced to two in the twenty-four hours.

She had no rise of temperature, the menstrual flow ceased

at the proper time, and the soreness of bladder rapidly diminished. At the end of a week she was able to take ordinary food, and sit up several hours a day; and in ten days walked out. It is now twenty-one days since the operation, and she complains of no pain, but says she has a little feeling of discomfort in the bladder and a tendency to strain when urinating. Of course, it is too early to know what the result will be in this case, but the operation was justifiable, and should have been done long ago.

At the time of the last two operations, I had not seen the notice of a paper on "Vesical Calculus in Women," written by M. Pozzi, of Paris. He speaks of a "case of vesical calculus in the female, which was extracted after dilatation of the urethra. The patient being under chloroform, M. Pozzi dilated the urethra by means of six hard gum elastic bougies. This took about ten minutes, and allowed a calculus to be extracted which was one and one half inches in diameter." He further says,—"Having ascertained with the finger that no other calculus was present, and that the walls of the bladder were healthy, the operation was terminated with an antiseptic douche. . . . Although the operation is a rapid one, and only lasts ten minutes, chloroform is absolutely necessary, as besides doing away with the pain it paralyzes all the muscular fibres about the part, and allows them to regain activity afterwards. . . . This dilatation might therefore be used for diagnostic purposes whenever there is any doubt about the number, shape, nature, and situation of calculi. The only precautions necessary are the antiseptic douching afterwards, and the retention of two tubes in the urethra for a few days to facilitate the irrigation."

As regards the precautions given above, the douching is imperative, but I fail to see any necessity for the retention of tubes in the urethra for irrigating purposes. The urethra is so much dilated, and remains so for several days, that there is not the slightest difficulty in passing a double silver catheter when the douche is required, and removing it when it is ended, leaving the urethra and bladder free from any foreign body. His method of dilating by filling the urethra with a sufficient number of bougies seems to me much better than using ordinary

dilators, and, lastly, the finger, as he claims to dilate in ten minutes; while in both the cases given above at least thirty minutes was necessary.

Case 9 was admitted to hospital Feb. 9, 1887; was injured February 8 by the cars; ether given. Examination showed compound comminuted fracture of both bones of the right leg at junction of middle and lower thirds. About two inches of the shaft of fibula was wanting, and about the same of tibia, which was badly comminuted, and the soft tissues a good deal lacerated. As the foot was fairly warm and the circulation not much impeded, it was decided not to amputate, and the limb was placed on a posterior wire splint in such a manner as to insure free drainage. Several pieces of the tibia were removed, and the wound thoroughly cleansed with antiseptic solutions. Suppuration occurred early and was very profuse, so that orders were given to have the wounds irrigated every two hours. The bowels were kept open by means of salines, and there was very little rise of temperature. Eleven days later the record says,—"More pieces of bone were removed, the granulations are healthy, and the wound looks clean and well."

Twenty-one days after the injury he was etherized, and two inches of the tibia exsected, the ends of bone brought together and wired. Five days later, had a slight secondary hemorrhage. March 10, took off wire splint, and put the leg in a plaster splint. General tonic and supporting treatment continued as from the first.

March 30 the report says,—"Took off plaster splint; found the bones held together by plastic material, so that they could be handled with proper care without pain. Limb again placed on a wire splint. Lacerations healing kindly, and the case looks hopeful. April 12, wire splint removed, and the leg put into a Levis copper splint. The wounds are gradually closing in. On April 19 his temperature began to rise, and on the evening of the 23d reached 103⅘°. The next morning about two ounces of pus were discharged from an opening on the front of the leg, the temperature fell rapidly, and became normal." Wound dressed with boracic acid ointment. Three days after above record a second abscess formed to right of fracture of tibia. This was opened, and the wire removed

from the tibia, and he has improved slowly. The leg showed a great tendency to slough on the slightest pressure. Ninety-seven days after the injury he was got out of bed for the first time, and allowed to sit in a reclining-chair. May 28 the record says,—"Has improved steadily, and the wounds are nearly healed. Walked to-day for the first time." He remained in hospital 203 days, when he was discharged. He was able to walk with the aid of a thick-soled shoe and a cane, with very little lameness. There was two inches shortening, and at first the muscles did not contract enough to raise the toes in walking, but as time went on they accommodated themselves to the shortened bones, and he was able to walk very well. The chief interest in this case lies in the fact that while it would have been excellent surgery to have amputated the limb immediately, conservative surgery saved him a much more useful member than any artificial limb could have proved; and in addition I am certain that every one who watched the progress of the case will hereafter have more courage and confidence to try saving a limb that has been badly crushed than he had before.

Case 10. Admitted to hospital May 24, 1887. This was another railway injury, crushing the right ankle, laying open the joint, and fracturing the fibula about two inches above malleolus, and again four inches above the first fracture. The wound was thoroughly cleansed, the limb washed, and then put up in a dressing of carbolized gauze and the limb confined in a fracture-box. The dressings were not disturbed for six days, and when they were removed the wounds were found to be healing rapidly, and there was almost no suppuration. The foot was then taken from the fracture-box and put into a Levis copper splint, with a foot-piece to keep the foot from drooping. June 14 the record says,—"The wounds are closing rapidly, and the fractures are uniting. As it is thought the leg can be cared for at home, he is to-day discharged." I find among my notes a memorandum made seven months after the injury, which says,—"After discharge from the hospital the leg continued to improve, passive motion of the ankle-joint was instituted at an early date, and kept up so that he has almost perfect motion of the joint with no appreciable deformity." Since then

he has resumed his work on the railroad, that of a freight brakeman, and climbs about over the cars as well as he ever did.

Case 11. The record of this case is very brief, and as I had no care of the man, I am unable to give a full report. Record says, August 7, 1887, "Right leg run over by the cars, crushing it at middle third; taken to the hospital within a few hours, where he was made comfortable with morphia and brandy; waited for reaction, and then amputated at junction of middle and upper third. Ligatures came off at the proper time, and the stump did very well. Sat up the eighteenth day after the operation, and in thirty days was about the ward on crutches. September 17th the stump was healed, and he was discharged. I am told that the stump has broken open several times since, and that he has been unable to have any artificial limb applied."

Case 12 was another railway injury, admitted to the hospital Nov. 1, 1887, the right foot having been crushed between two cars. The record in this case is also rather meagre. "Amputation at junction of lower and middle third of leg. Flaps were not in first-class condition at time of operation, and in a few days sloughed away entirely, leaving the ends of bones exposed. The granulations were very lively, and he being in good general condition, it was decided to let the stump heal by granulation instead of reamputating." Thirty-eight days after the first amputation the stump had almost healed, when he accidentally fell from his chair, striking the stump on the floor and injuring it so badly that eight days later the leg was reamputated, going just high enough to get a covering for the bones. The wound healed partially, and then showed a tendency to slough again, and a large abscess formed in the vicinity.

Through February stimulating applications were made to the stump, and tonics administered regularly. Four months and a half after injury, the stump was not entirely healed, though it was nearly so, and he was discharged at his own request. This was a very unsatisfactory case from the beginning, and whether he has fully recovered I am unable to state. This and the preceding one are principally interesting in this report of a few railway injuries as instances where apparently everything is done for the well-being of the patients, and yet they do badly.

The proper discussion of railway injuries would require a

paper devoted entirely to their immediate and remote results, but I trust I shall be pardoned for making one suggestion in regard to them. I think the tendency of surgeons is to operate in these cases before the patient has fully recovered from the shock of the injury, which frequently does not happen before twenty-four or forty-eight hours have elapsed. This should never be done if the injury is of any magnitude, unless it is imperative to check hemorrhage.

Case 13. Admitted to hospital Nov. 5, 1887. On the evening of Nov. 3, 1887, while coupling, he was caught, the widest way of his body, between a lumber car which was loaded over the ends, and a common box-car, and squeezed into a space estimated to be about ten inches. This caused fracture of right acromion process, the neck of scapula, and possibly a partial transverse fracture of the body of scapula just below the spine. The arm and detached portion of scapula dropped down the side about four inches, causing frightful deformity of the shoulder, and putting him in great pain. The right lung was badly injured, and he threw up considerable fresh blood. The lung gradually filled up, and in a few hours he was doing all his breathing with the left lung.

By applying considerable force the parts were finally adjusted, and several appliances tried to retain them in position; but the weight of the arm soon caused displacement and great pain. At last I put the shoulder in position again, fixed the forearm to the front of body by means of an adhesive bandage so as to get a leverage, put in a large axillary pad, and carried the adhesive bandage over the proximal part of scapula and clavicle, down under the proximal end of forearm, making turns enough of the bandage to insure its not breaking or slipping. Over this was carefully placed a Velpeau bandage, and he was put to bed on a perfectly flat bed, with a very small pillow under the head. The pain at seat of fracture subsided immediately, but he suffered a good deal of pain in the right lung and side, and his breathing was difficult and labored. To relieve the lung symptoms he was given liquor ammoniae acetatis, and when the pain in chest became severe, was given a small dose of bromide of morphia. In about five days the lung began to clear up and the swelling of thorax and shoulder to subside, so that the band-

ages became loose. They were carefully cut away from him, and while an assistant held the shoulder firmly in position, he was raised to a sitting posture and the same sort of dressing again applied. Two weeks after the injury the lung had all cleared up, and the fractured parts retained their position perfectly. He was now allowed to get up and have his clothes on, and was sent to his home in Hampstead, where he went under the care of Dr. J. C. Eastman, who tells me that he allowed him to wear the same dressing until the fracture was firmly united. I have not had an opportunity to examine the shoulder carefully since he left my care, but he tells me he can do anything with the arm, and has resumed his work on the railroad. I was very much interested in this case, as fracture of any part of the scapula is very uncommon.

Gross says, "Of 1902 cases of fractures of different pieces of the skeleton, treated at the Middlesex hospital, London, only eighteen occurred in the shoulder-blade; and at the Hôtel Dieu at Paris, the scapula in 2,358 cases was broken only in four." The acromion process, from its exposed situation, is more frequently broken than any other part of the bone, the accident being usually caused by a blow upon the top of the shoulder, or by violence applied directly to the process itself. . . . The union is usually ligamentous instead of osseous, owing to the difficulty that is experienced in preserving the contact of the fragments. . . . In fracture of the neck of the scapula, the coracoid process and glenoid cavity are detached from the rest of the bone in an oblique direction. The accident is of such great rarity that many surgeons have doubted the possibility of its occurrence. It can be produced only by great direct violence. . . . The symptoms are always well marked. The acromion is usually prominent; the head of the humerus is felt in the axilla, the shoulder has a flattened appearance, the limb is lengthened, the coracoid process is thrown down below the clavicle between the deltoid and pectoral muscles, severe pain and numbness are experienced in the axilla, and distinct crepitation is perceived on rotating the arm upon the scapula. The accident bears at first sight considerable resemblance to dislocation of the humerus into the axilla, from which, however, it may be readily distinguished by the facility with

which the parts may be restored to their natural situation, by the immediate return of the symptoms when the limb is left to itself, and by the existence of crepitation. From fracture of the neck of the humerus it may be known by the circumstance that in the latter the shoulder retains its rotundity, and that the limb, instead of being lengthened, is shortened." Continuing, Gross says,—"This fracture is retained with difficulty, and is liable to be followed by stiffness of the shoulder-joint, atrophy and paralysis of the muscles of the arm, and other disagreeable effects. It is managed in the same manner as fracture of the clavicle, with an axillary pad, the elbow being kept well raised, and the scapula thoroughly steadied until there is complete reunion. . . . Consolidation may be expected in two months."

Case 14, female. Admitted to hospital May 7, 1888, with compound comminuted fracture of right tibia and fibula at junction of middle and lower third, from the kick of a horse. The leg was at first kept in a fracture-box; but as she was about seven months pregnant, the position soon became very tiresome. It was then taken from the box and put into a stirrup-splint of calcined plaster, so as to allow her to turn on her side. The openings were thoroughly cleansed twice a day, and then dusted over with iodoform.

After wearing the stirrup-splint a few days it was found that it did not reach high enough on the leg to keep the fractured bones immovable. It was consequently removed, and an ordinary roller-splint of calcined plaster applied from the toes to the knee-joint. As soon as it hardened, a fenestrum was cut directly over the wound just large enough to cleanse it and apply the iodoform. The cut edges of the fenestrum were covered with paraffin, which was also allowed to flow on to the limb to prevent the pus from running down the sides under the splint. This splint held the bones in place; and when it was swung on a Salter's apparatus, she could move in bed with perfect ease. The discharge of pus has been very slight, with the exception of one day, when, as a result of a small abscess, about an ounce of healthy looking pus was discharged. The provisional callus is being thrown out very slowly and sparingly, probably because nature cannot supply the demands of the child, and at the same time repair a severe injury like this.

It is now within about four weeks of her date for confinement, and it is hoped that the external wounds will be entirely healed by that time.

Case 15 was admitted to hospital May 25, 1888, suffering from an injury by being dragged from an express train by an insane man. He struck on the hard road-bed, and turned somersaults for about thirty feet, and when first taken up was unconscious. He recovered consciousness in a few minutes, and I saw him about half an hour later. He had a scalp wound of the top and left side of head, about seven inches long. The flap was badly bruised, the periosteum torn from the skull, and the whole surface of the wound filled with cinders driven into it by the force of the fall. These were washed and picked out carefully, the periosteum replaced, and the scalp wound sutured to within an inch of the end on back of head. This was left open for drainage. The portion of wound that was sutured was covered with powdered salicin and antiseptic cotton. A small piece of the external condyle of right humerus was knocked off, but as it did not move unless by force, no splint was applied, but the arm was enveloped in warm compresses and allowed to lie in the position most comfortable. Was put on a light diet, and cooling drinks administered. Twenty-four hours later his neck was swollen, and so stiff and lame he could not turn his head on the pillow; at the same time his face began to swell, and in twenty-four hours more he could not open either eye. Evaporating lotions were applied constantly, and the swelling soon subsided. Two days later a large swelling formed on the right side of head, and rapidly softened. An incision was made at the most dependent part, and about three ounces of pus escaped. At this time all the periosteum that was detached at time of injury, together with a good deal of bruised tissue, sloughed off, and was removed from under the posterior border of flap by irrigation. The portion of scalp that was sutured healed readily, and the stitches were removed the fourth day. The wounds are irrigated every day with carbolic solution, and iodoform dusted over the open wound. The granulations are rapidly covering the exposed bone, a bare spot remaining that is not much larger than a small pea. This will undoubtedly be covered by the end of another week.

Case 16. A girl 16 years old was admitted to hospital suffering from three deep-seated submaxillary tumors. Alteratives were administered internally and applied externally for a period of nearly two months, but the tumors increased in size so that the head was carried considerably to one side. Although the tumors were not very movable, it was decided to attempt an operation for their removal, as she and her mother were anxious that it should be done, her father having died from malignant disease of the glands of the neck. She was put under ether, and an incision made commencing just back of the angle of the lower jaw, following the curve of jaw and ending just under the middle of chin. This flap was turned up on to the face, and held by an assistant. The different layers covering the tumors were carefully divided, first pushing a grooved director through each layer of tissue, and examining the parts to see that no vessels of importance would be severed. The tumors were dissected out from below upwards, and proved to be lying close to the larger vessels, the carotid being exposed for about an inch, and the external jugular for nearly two inches. Very little hemorrhage occurred, only one ligature being required, and that for a very small branch of the facial. The edges were carefully brought together and sutured, and covered with powdered salicin and a large, soft compress. A drainage-tube was put into the wound; but it was of no use, as no pus formed, and it was removed at the first dressing, four days after the operation. The wound healed by first intention, except where the drainage-tube was in, and in ten days she went home with a very narrow cicatricial line, which caused little disfigurement, as it followed the contour of the cheek.

It was my intention to report several cases of scirrhus of the breast, but I will spare you details, and discuss briefly the cases as such. I am well aware that many surgeons do not believe that life is prolonged by operative measures in cancer of the breast; but I cannot think that. During the past seven or eight years it has been my fortune to operate on a comparatively large number of these cases; and the results have been such that I am more firmly convinced than ever that all malignant growths of the breast should be extirpated as soon as they are discovered, and I am not certain but what any abnormal growth

in these organs should be removed at once, to prevent the development of cancer. In all the time referred to, only two of the cases operated upon have died from a return of the disease, both of them above fifty years of age, rather feeble and poorly nourished at the time of the operation.

In the first of these two I made the mistake of not removing the whole gland, but simply cut away what tissue was hardened, leaving apparently about half of the gland sound. Inside of three months the disease had attacked the remnant of gland, and, declining any further operative interference, she died within a year. The other fatal case had gone on to the ulcerative stage, and had already been once cleaned out with dried sulphate of zinc, and healed. It began to show signs of breaking down again, and I removed the whole gland with the knife. The wound healed promptly, and for three months she felt perfectly well. Then she began to complain of pain in the stomach, and in two months more was dead from cancer of the stomach.

In operating for scirrhus of the breast I have pursued a somewhat different course than the one usually followed. Instead of sweeping the knife down to the base of the tumor, and removing it at a few strokes, I carry the knife through the skin first, and then dissect out the whole gland, carefully removing the mass of fat usually surrounding the gland to an even level, so that when the flaps are brought together they do not fall over any sharp edge or ridge of tissue; and if, as frequently happens, the growth is attached to the pectoral muscle, as much of that as is necessary is sacrificed. If any enlarged glands can be felt in the axilla, they are invariably removed. Any little uneven points in the wound are smoothed off, the edges are carefully coapted and held together while each suture is passed. The sutures are put in very near together, and supported by adhesive straps, or, what I like better, dry sutures placed some distance from the wound. The incision is carefully dusted over with powdered salicin, a thick compress of antiseptic cotton and gauze applied so as to give firm, even pressure over the whole of the wounded surface, thereby securing primary union between the walls of the cavity. It will be noticed that I do not use any drainage-tubes in these cases, as I believe they are

more often productive of harm than good. If the incision is properly brought together and the pressure applied equally, and the whole thing left to itself four or five days, complete union will invariably take place. I believe firmly in the use of powdered salicin in preference to iodoform, where primary union is desired, as it accomplishes all that is claimed for iodoform, and I think forms a better protective, and is entirely free from the very objectionable odor of the latter. If so much tissue were sacrificed that I could not bring the incision together, I should then use iodoform on the open wound. The one instance in which I have used a drainage-tube was in a case of this kind. The incision was made in such a way that I was unable to close it; and as I feared pus would accumulate in the cavity, I passed a glass drainage-tube to the bottom of the wound, and, making a counter opening, pushed the tube down through, fastening it to the side with a bit of adhesive plaster. No pus formed, however, and the tube was removed after three or four days. These glass drainage-tubes were suggested to me by Dr. Robert Abbe, of St. Luke's hospital, New York, who uses them entirely to the exclusion of rubber tubes. They are always permeable, and can be kept clean and used over and over again until broken. The tubes he uses have no fenestra, but I took some of them to Mr. Martin Young, a dentist in this city, and he in a few minutes ground holes in them, which I think are an improvement; and if you must put a drainage-tube into every breast case you operate on, I would advise your giving these glass ones a trial.

DISCUSSION.

Dr. M. W. Russell, of Concord.—The excellent paper we have just listened to affords material for very little discussion. It seems to me that Dr. Stillings has taken a wise course in reporting cases of interest, instead of indulging in theorizing. We can get the discussion of cases enough in our books; we can get theory enough in our books. But critical cases are not all afforded in the practice of any physician; and describing these cases which have occurred in his private and hospital practice seems to me to be a judicious thing. He has reported them so ably that they require no discussion. I wish

to touch upon one or two things that he has said. First, the removal of tumors, especially of the breast, at an early stage. I believe that not only malignant tumors, but other tumors, should be removed early, because they are very apt to take on a malignant form ; and, after taking on a malignant form, they are very much more apt to recur than if removed early. The early removal of tumors may preserve the life of the patient for many years. A patient came to me last winter with a malignant cancerous growth of the ear. Operation had been delayed for months, until the ear was nearly destroyed. I removed nearly the whole of the ear, and a tumor in front and a tumor back of the ear. In about two or three months the cancerous growth made its appearance again in a tumor anterior to the ear, and I removed that. Unfortunately the tumor embraced the temporal artery in its growth. I scraped out the tumor with the curette. Of course I did not know to what extent the artery was destroyed. After removing all I could with a curette, with a sharpened finger-nail I scraped out the balance. The wound healed very kindly ; but after two or three months it has broken out again, and the man must die. If an early operation had been made in that case, the man's life might have been prolonged indefinitely.

The doctor's idea of drainage-tubes, it seems to me, is all right. I perfectly coincide with him. There is another thing that he has mentioned, and that is the use of powdered magnesia in the treatment of burns. I think it one of the best applications for ulcerated surfaces that I have ever used.

Dr. D. S. ADAMS, of Manchester.—I want to refer to the treatment of burns. A treatment was suggested to me in my practice by a person who was not a physician ; but afterwards, in consultation, I found that Dr. Parsons, of our city, had used it some time. I have used the treatment, I think, with better results than almost anything else I ever used, where the burn is not too extensive ; and, in fact, I do not know but it might as well be applied to an extensive burn as to a small one. The treatment is the application right over the burn of newly-slaked lime mixed with linseed oil.

A member.—Where the skin is broken?

Dr. ADAMS.—Yes, sir. Mix it thick enough, so it makes a

paste. It hardens somewhat, and keeps the air away from the burn. It will relieve the intense suffering more than anything else I have ever used.

There is one thing in Dr. Stillings's report that I did not quite understand—the skin-grafting. I have done some skin-grafting, and my practice has been to scrape up skin and sprinkle it upon the sore and put a plaster over that. I see here that the exact number of grafts is enumerated—forty in one place and three hundred in another. I would like to know the method of skin-grafting that was adopted.

Dr. STILLINGS.—Many of the grafts were made before the patient came into the hospital, and none of them were made during my term of service. I think Dr. Walker made the grafts, and if he is here in the hall he can tell you just how he made them. I think that he simply cut a piece of skin from the husband, and that little slits were made in the burned surface, and pieces of skin were stuck in. What was used for dressing I am unable to say.

Dr. GROSS.—I would like to inquire of Dr. Adams if the lime used was slaked by air or by water.

Dr. ADAMS.—By water. Take new lime and slake it right out, and just as soon as it cools so you can put your hand into it, or so that by mixing it with the oil it can be borne on the skin, it should be used. I put it on when it is quite warm.

Dr. WHITTIER.—What difference is there in your treatment from the old-fashioned lime-water and linseed-oil treatment?

Dr. ADAMS.—It is very much thicker, and keeps the air out very much better.

Dr. RUSSELL.—Does not this application of lime have precisely the same effect as the use of soda? It would seem to be a change of material without any change in principle.

Dr. WHITTIER.—You get a little more lime—a more pasty mass. Soda or potash, either of them, so far as relieving pain and getting rid of the action of air on the burnt surface, is infinitely superior to any preparation of oil and lime that you can put on. If you will put on a saturated solution of bi-carbonate of soda or of potash, you will relieve the pain at once.

Dr. LATHROP.—Dr. Adams says that the lime must be fresh.

Why not use slaked lime that is old? That is sometimes at hand when the other cannot be had.

Dr. ADAMS.—I have no reason except that I was told to use fresh lime. But if I did not have fresh lime, I would use such as I could get.

THE EXTENT AND DISTRIBUTION OF CONSUMPTION IN NEW HAMPSHIRE

BY IRVING A. WATSON, M. D.,
Secretary State Board of Health, and Registrar of Vital Statistics.

I beg the indulgence of this society for a brief time in order to present some facts which have been deduced from the registration of deaths in New Hampshire for the past three years, in relation to pulmonary consumption. But almost before I begin, let me digress for a moment to say that the registration of vital statistics in this state has become sufficiently accurate to be already of great value in considering certain questions affecting the welfare and happiness of our citizens. It only needs the analytical mind and the careful hand to bring forth an array of facts relating to the prevalence of disease among us, that will not only enlighten the public mind, but also prove intellectual food for ourselves. It is forty years since this society made its first strong effort to secure a registration of deaths such as we have reached within the past three years; and it is only a small fraction of the recorded facts of those three years that I shall bring before you at this time. When another forty years shall have been added to the countless decades of the past, if our system of registration is maintained the members of the profession in New Hampshire will be in possession of certain mortuary laws which are to-day unknown, or, at most, largely conjectural, and will have a topographical knowledge of the diseases that invade or are indigenous to the state that will be of incalculable value to physicians, their patients, and the public. The physician who would save himself the trouble of making a return of deaths by evading or ignoring the law, would neglect any other duty tending to make

our practice more scientific and our knowledge of disease more exact; and I am glad to be able to say, as registrar of vital statistics for the state, that so far as I know there is no opposition to such a requirement on the part of the profession. So much for the digression.

Pulmonary consumption is by far the most fatal disease with which mankind is afflicted. In the aggregate, the devastating plagues of the sixteenth century, and the frightful epidemics of cholera which have since occurred, are tame in their ghostly havoc compared with the terrific onslaught of consumption. No race or clime is exempt from its terrible blight: even among the salubrious granite hills and the healthful valleys of New Hampshire it stalks, year in and year out, destroying nearly twice as many lives as any other disease. With an insidious tread, whose faintest footfall is first heard in the occasional bronchial cough, and whose form is first seen in the hectic flush that sometimes counterfeits the bloom of health, it grasps its victims, and, with a hand so gloved as to be almost unfelt, crushes out life after life in its silent conquest.

It has no pity for age, sex, education, or wealth; it pursues the mendicant; it is domiciled with the rich. Its terrible reality is so interwoven with civilization that we regard it a concomitant of every community, scarcely inquiring by what decree it becomes a part of our heritage. Public opinion has already too long ascribed the inheritance to the caprices of a much-abused Providence, or to some other mysterious edict, from which there is no escape. It is time that such views be consigned to the great dump-heap where the carts of superstition are—thank God!—unloading the intellectual garbage of generations, and the true relation of cause to effect be studiously and scientifically examined. To do this, we must get at all the facts that have in any way a casual relation to the disease. First, the extent of its prevalence must be known; the age, sex, and condition of its decedents; the season, topography, and other factors that can only be obtained by a careful and systematic registration.

With a view of presenting some of these essential facts for your consideration, I have prepared a few diagrams and tables which I trust will not weary you to follow.

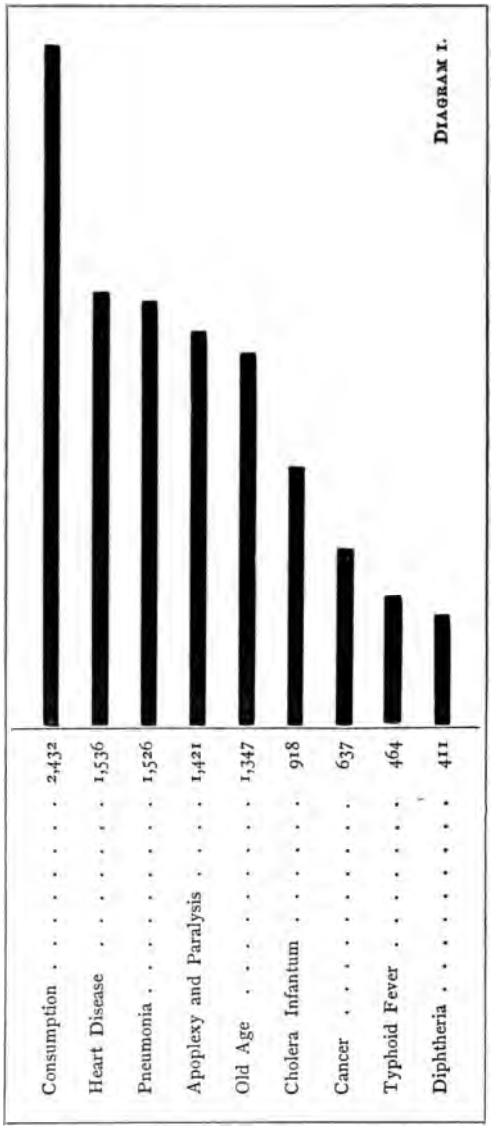
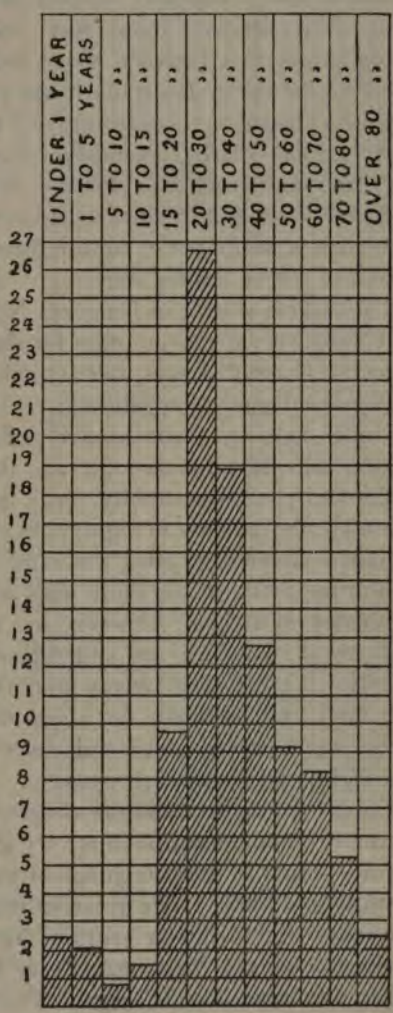


DIAGRAM I.

Diagram No. 1 shows the proportional relation of consumption to eight of the most fatal diseases in the state, arranged in their numerical order of fatality. It should be remembered

that these diagrams cover a period of three years,—1885, 1886, 1887. There were 2,432 deaths from consumption, 1,536 from heart disease, 1,526 from pneumonia, 1,421 from apoplexy and paralysis, 1,347 from old age, 918 from cholera infantum, 637 from cancer, 411 from diphtheria, and 464 from typhoid fever.

It will be seen that diphtheria and typhoid fever appear almost insignificant upon the diagram compared with the great mortality from consumption, although the former will cause far greater anxiety and excitement in any community. Over fifteen per cent. of all the deaths that occur in New England are from consumption. Diagram No. 2 shows the percentages of deaths from consumption, by specified ages, to the total mortality from consumption, for the years 1885, 1886, 1887. This diagram represents the disease as it actually exists. The percentage of decedents is as follows: Under one, 2.44; one to five, 2.07; five to ten, 0.78; ten to fifteen, 1.53; fifteen to twenty, 9.74; twenty to thirty, 26.78; thirty to forty, 18.98; forty to fifty, 12.60; fifty to sixty, 9.08; sixty to seventy, 8.33; seventy to eighty, 5.22; over eighty, 2.40.



DIA'M 2

This table, taken by itself without reference to the living of the respective ages given, is exceedingly misleading, inasmuch as, without considering the latter factor, it would leave the impression that between the ages of twenty and forty the liability to the disease is nearly twice as great as at any other period of life. A greater number die, as this diagram and the table show, between those ages, but there is a much larger living population between those same ages. My observation has long led me to doubt that there was any period of life that could be classed as "consumptive," in contradistinction to any other period offering exemption from the disease, after adult life has been reached. I have therefore taken some pains and time to study the subject, and am able to prove by figures that such a supposed "consumptive period" does not exist, except to a very limited degree.

This fact is shown in Diagram No. 3, which represents the percentages from consumption for the three years before mentioned, by specified ages, to the total population of those ages. The percentages are as follows:

Under one, .32; one to five, .06; five to ten, .02; ten to fifteen, .04; fifteen to twenty, .24; twenty to thirty, .34; thirty to forty, .32; forty to fifty, .25; fifty to sixty, .22; sixty to seventy, .28; seventy to eighty, .29; over eighty, .41.

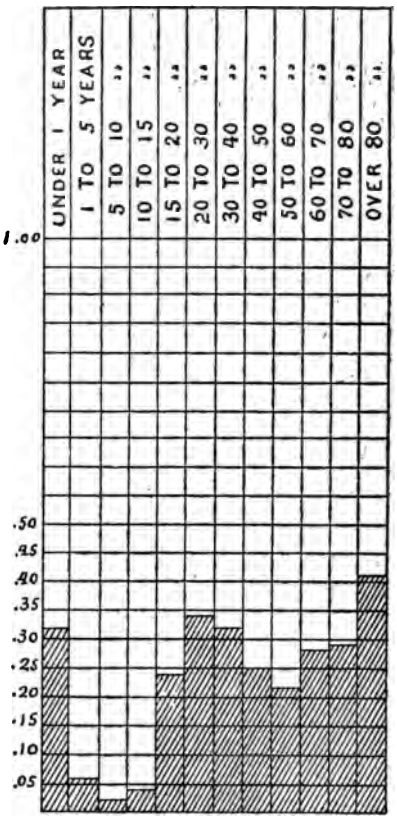
Stated in another way, the ratio of deaths from consumption to the living of the same ages is,—under one year of age, 32 deaths to 10,000; between one and five, 6; between five and ten, 2; between ten and fifteen, 4; between fifteen and twenty, 24; between twenty and thirty, 34; between thirty and forty, 32; between forty and fifty, 25; between fifty and sixty, 22; between sixty and seventy, 28; between seventy and eighty, 29; over eighty, 41.

From these figures and the diagram, it will be seen that the mortality from consumption is very great during the first year of life,—equal to the percentage of mortality between the ages of thirty and forty. The greatest immunity from the disease is between two and fifteen years of age, as will be seen by the large gap in the diagram. From the fifteenth year to over eighty the mortality is large. The highest death-rate from this disease in the active period of life is reached between the

ages of twenty and thirty; from thirty to sixty there is a slight diminution in its percentage of mortality; while from sixty to over eighty it constantly increases.

This computation is based upon the living of those ages according to the census returns, and is, without doubt, approximately correct. The census returns of 1880 gave the living of the state as follows:

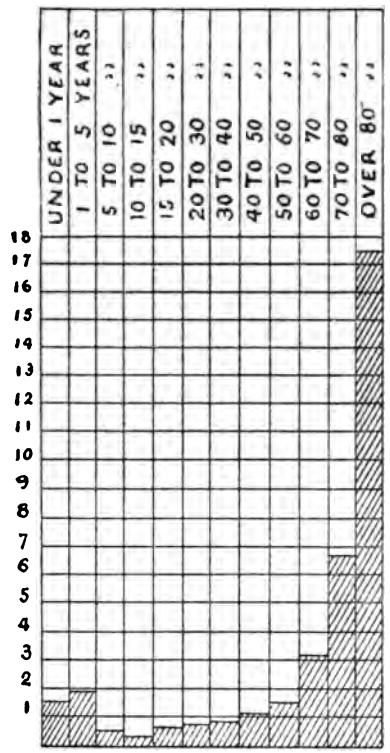
Total, 346,991. Under one, 6,144; one to five, 24,432; five to ten, 30,230; ten to fifteen, 30,669; fifteen to twenty, 32,055; twenty to thirty, 63,252; thirty to forty, 46,532; forty to fifty, 39,344; fifty to sixty, 31,998; sixty to seventy, 23,417; seventy to eighty, 14,227; over eighty, 4,695.



DIAM. 3

The facts represented by Diagram No. 3 are very important in showing the danger from consumption at all periods of life. This is the true diagram from which to judge the disease, because it shows exactly its ravages by ages among the people of the state. The popular idea of the prevalence of consumption, and an idea to some extent entertained by the medical profession, is that represented by Diagram No. 2, which shows the actual mortality from consumption, without taking into account the living; it is, in fact, a diagram of the dead alone, while Diagram No. 3 is the ratio of the dead to the living.

It is upon a knowledge of the disease as represented in Diagram No. 2 that mistakes are made in the acceptance of subjects for life insurance, under the supposition that having passed the age of forty, the chances of death from consumption are constantly lessening. Diagram No. 3 shows that the chances do lessen a little from forty to sixty, and after that constantly increase to the end of life. This diagram shows exactly the liability to the disease, according to age, based upon the mortality of the disease in New Hampshire for the last three years.



DIA'M 4

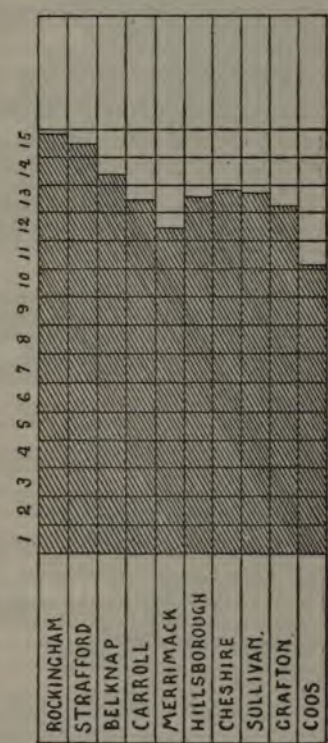
Now let us for a moment compare the mortality rate from consumption to the mortality from all causes, to the living of the ages given.

Diagram No. 4 represents the percentages of deaths from all causes to the living of those ages. The exact percentages are as follows:

Under one, 1.42; one to five, 1.92; five to ten, 0.49; ten to fifteen, 0.33; fifteen to twenty, 0.61; twenty to thirty, 0.74; thirty to forty, 0.88; forty to fifty, 1.04; fifty to sixty, 1.52; sixty to seventy, 3.12; seventy to eighty, 6.78; over eighty, 17.50.

Comparing these figures with those upon which Diagram No. 3 is constructed, we find that, were it not for consumption, the mortality rates between the ages of fifteen and forty would be very small; in fact, that period of life could be considered almost exempt, as it should be, from fatal diseases.

Diagram No. 5 shows the percentages of deaths from consumption for the years 1885, 1886, 1887, by counties, to the total mortality of those counties. The uneven distribution of the disease is to be accounted for only after the consideration of many factors affecting different localities. A low elevation and soil moisture doubtless have much to do with the high rates of Rockingham and Strafford counties, while the low rate of Coös is from a reverse topographical condition, with a larger area of forests and different atmospheric conditions. To account specifically for the variations exhibited in the diagram, the exemption from and prevalence of other diseases would have to be considered. For instance, in Hillsborough county the mortality rate from consumption in children under five years of age is doubtless greatly reduced by the heavy mortality rate from cholera infantum; in like manner, the mortality rate from consumption varies in other localities. The diagram is simply given to present the actual facts, rather than to enlarge, at this time, upon the causes that are responsible for the variations exhibited. A study of the death rate from consumption by seasons seems to show that there is no very marked variation from month to month. For the past three years the rate is as follows: January, 288; February, 235; March, 232; April, 234; May, 252; June, 231; July, 198; August, 177; September, 173; October, 208; November, 198; December, 182. The greatest number of deaths was in May and the fewest in September. There is a sameness in the mortality of consumption by months not characterized by any other disease.



DIA'M 5

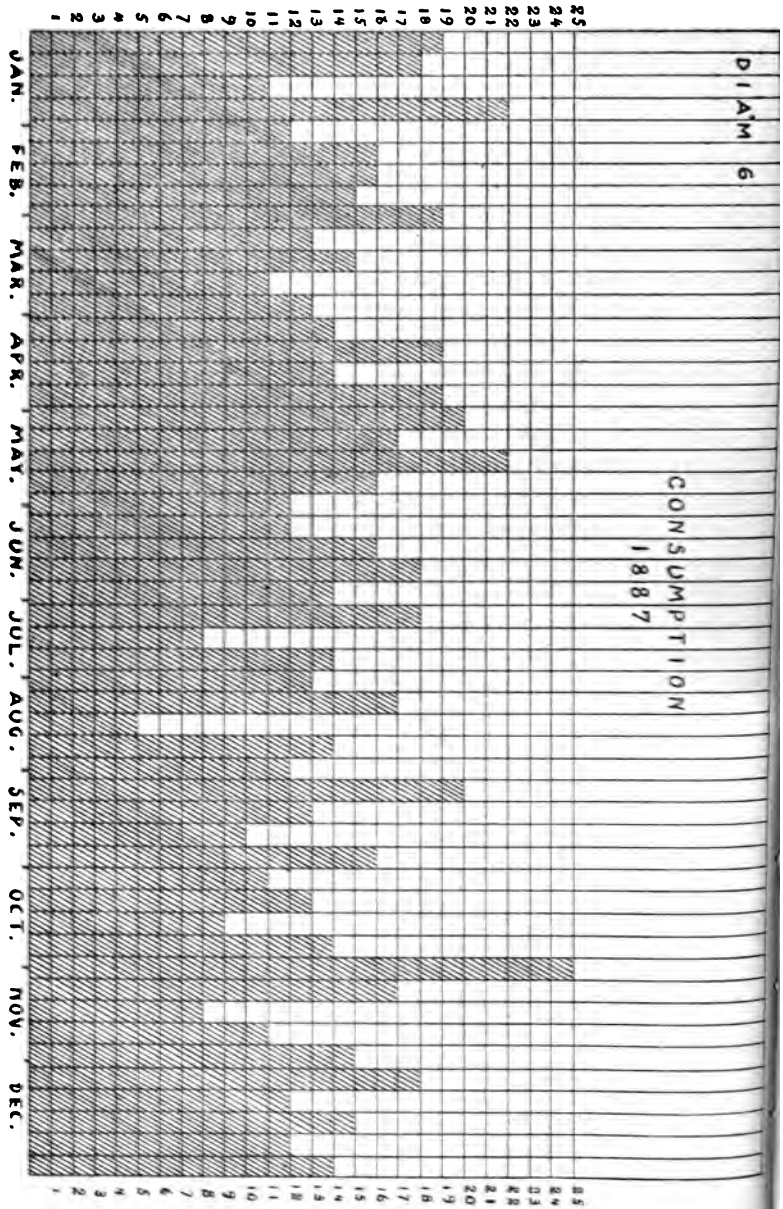

DIAM 6.
CONSUMPTION
1887
JAN.
FEB.
MAR.
APR.
MAY.
JUN.
JUL.
AUG.
SEP.
OCT.
NOV.
DEC.

Diagram No. 6 shows the mortality from consumption during the past year (1887) by weeks, the greatest number of deaths occurring in the last week of October, and the least number in the second week of August.

A glance at diagram No. 7, showing the deaths from acute lung diseases for the same period, shows vividly an effect of season which is not manifest in pulmonary consumption. This diagram includes pneumonia, acute bronchitis, asthma, and pleurisy.

The death rate by sex in consumption is largely among women. During the past three years the mortality by sex is as follows: Males, 1,051; females, 1,369. This is readily accounted for from the fact that women are subject, to a far greater extent than men, to the evils of non-ventilated living-rooms, as well as to the pernicious influences of other unsanitary surroundings.

Occupation, no doubt, has its influence in developing the disease; but our registration does not yet cover a sufficient number of years to present any facts of value upon this subject.

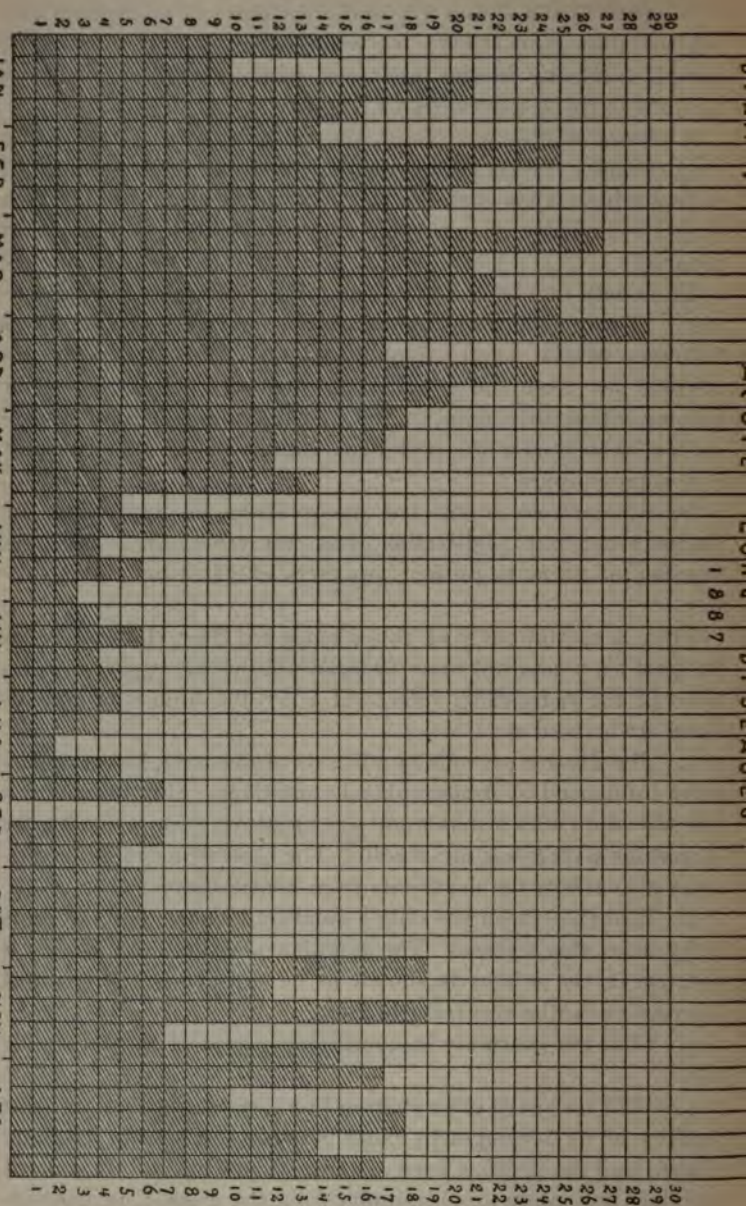
From a careful study of this disease in New Hampshire for the past six years, but more especially from the registration returns of the years 1885, 1886, and 1887, the following conclusions are arrived at:

1. The disease prevails in all parts of the state, but is apparently influenced by topographical conditions, being greater at a low elevation with a maximum soil moisture, than in the higher elevations with a less moist soil. The prevalence of other diseases also affects the death rate from consumption.

2. That the season has only a small influence upon the mortality from this disease. The popular idea that the fatality is greatest in the winter is shown to be erroneous, the greatest number of deaths occurring in May.

3. That the mortality is considerably greater in the female sex.

4. That no age is exempt from this disease, but that the least liability of its development exists between the ages of two and fifteen, and the greatest between twenty and thirty. Advanced age does not assure any immunity from the disease, as is gener-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1887

ally supposed, but the smaller number of decedents is due to the fewer living persons of that advanced period of life.

5. The death rate from pulmonary consumption is relatively much the larger among the foreign born.

6. The average death rate from consumption for the years 1885, 1886, and 1887, is 12.86 per cent. of the total mortality of the state. In Massachusetts, for the ten years ending 1886, deaths from consumption averaged 16.10 per cent. of the total mortality; and in Rhode Island, for a period of twenty-five years ending 1884, 16.30 per cent. This shows a greater freedom from the disease in New Hampshire than in the two states mentioned.

In this very brief paper I have attempted to show only a few leading and important facts relating to pulmonary consumption. In military warfare, it is necessary to know the strength of the enemy in numbers, how he is fortified, from what direction he is likely to make an attack, or how garrisoned, in order to be assured of a reasonable chance of success in repelling his advance or of capturing his position. To rely upon the means at his command without this knowledge would be to invite defeat from the start. So in dealing with the fearful disease under consideration, it is necessary that the physician shall have a full knowledge of the foundation upon which is reared this appalling structure of death. Prescriptions of cod liver oil will check this advancing enemy with no greater rapidity than the rain will wash away the eternal rock of Gibraltar.

The mortality from pulmonary consumption has already been reduced during the present generation in New England; but the reduction has been secured through a better knowledge of how to avoid it, rather than from any system of medication. By a well directed application of the preventive knowledge which has been gained by a study of the history of the disease, its rate of fatality should be greatly lessened in the future.

DISCUSSION.

Dr. THOMAS HILAND, of Concord.—What can a person say in reply to a paper of this kind, fortified by statistics and by a well digested arrangement? Why should I make any remark? Simply because it is a subject that we are all interested in,

and one that I have studied from different points of view—perhaps from Dr. Watson's, as my teachers have been here and there and everywhere, I might say; my first teacher being old Dr. Bowditch, and my last one the gentleman who read the paper here.

Twenty-six years ago I examined some men, and found them to be exempt from disease, for military service. In a few months they had so far degenerated that they were invalided home with consumption; and the only way I could account for it was the crowding them in a place in the ship where the air-supply was not sufficient, and some part must break down, and that was the lungs. This is now perfectly understood, and we see it every day of our lives. I have been obliged to learn over again within the past few years some things in my pathology of consumption, and some of the causes of consumption. A few years ago I saw that a German had discovered the origin of consumption; and I thought it was very necessary for me to go to work again, which I did. Although I am a believer in the bacillus tuberculosis, it seems to me that there is something behind and before that. There are causes enough for consumption without being obliged to have recourse to that as the one cause. The yellow tubercle which I learned of years ago still exists, but it is so far modified that we search for the bacillus; but I do not always find it. I prepared a specimen last night, and I succeeded in putting one under the microscope, and I did not find it. But I am very sure it must be there, only that some of my manipulations failed. I am not certain that we need it to know whether we have a case of consumption or not, or to know whether it is progressing favorably or unfavorably. Its discovery has made a name, has made a branch in which we are all interested, and has taught us something. It has taught us something about pathology which we did not know before—that consumption does often begin in the alveolus itself; that it extends from that through its walls; that it forms, in the first place, small fibrous exudation; that after that follow a larger class of cells, four or five times larger than the blood corpuscles, and then the joint cells, which we see under the microscope, is proven, because we all have seen it; that the way that consumption seems to be limited is by a

fibrinous process. I received a letter a few days ago from one of my naval friends who has had consumption for years. It was of this fibrinous variety. He has had no trouble for several years: of course he does not reside in severe climates. He is a perfectly cured man, with large cavities in the top and middle of both lungs. There is no doubt but what the fibrinous deposits around the cavities and their subsequent contraction is the way that consumption is limited and cured.

I once had a case where I knew there were cavities,—one of my own sweethearts—not a female. The request was made of me when he died that there be a *post mortem* examination, as he had died from another disease. I found the cavities; I found the fibrinous matter; I found carbonate of lime extensively thrown into those places; but the lung had hypertrophied,—so, instead of its being a contracted chest, it was a full, robust, healthy lung, with the exception of these cavities. No doubt you have all seen the same limitation and getting well. The great tubercles which we often see in aged people at *post mortem* examination, to my mind are distinctly tubercles which have been healed.

I have found consumption in some localities considered particularly favorable for invalids to go to. Wherever I find a case of consumption, I expect that I can find some reason for it in the surroundings of the individual. When I go into a damp place, as Dr. Bowditch taught me, I expect to find consumption. People will just as soon build their houses on damp, wet clay, as they will upon a better soil. Education has not gone very far in the public mind. Our people are building houses on this swampy, clayey land just as rapidly as they are on the sandy hill; and I know the result. Nothing has struck me so forcibly in this country as the slight attention that is given to this subject as compared with some of the older countries. In France, a new house is built, and there is no occupant for it. It must wait at least a year before any respectable, intelligent family will go into it. Here, houses hardly have the windows put in before the family are driven into it; and what is the result? Consumption. You tell people not to go into their new house, and they will say, "Why, it is perfectly dry." But you yourself go into it, and sleep one night without the windows

being all open, and you will find that it is very far from being a dry house; and many a patient has come to me, and as soon as I found out that he had been living in a new house, the origin of the disease was perfectly plain. I would not have people with consumption go to a damp, warm climate. Let them go to St. Angustine with their nervous diseases, but do not send them there with consumption; they do not do well. If you will send them into an elevated, dry region, it will be of service; into an elevated, damp region, no. We have many very good places in the United States. Colorado has some places. An elevation does relieve in some way the work that the lungs have to do. Peru is mentioned as one of the favorite places for the cure of consumption. Yes, Peru, if you will send them into the Andes. Up along the coast is ripe with consumption, and people are dying more rapidly there with it than they are here. But if you will send them to an elevation of five, six, or eight thousand feet into the Andes, keep them out of the valleys, and give them a comfortable, dry place to live in, they will do well. I have measured many of the chests there, and they all measure one, two, three, and four inches more than we do. It is well enough to take a little rest before you go to the top of these mountains, because you get out of breath very easily after you get up ten thousand feet. There is no question but what an elevated locality is the best place to send those patients, that is, if it be a dry one. If it be a wet one, keep them away. California is a good place because it is dry, except in certain localities. San Francisco is damp, but in Southern California it is dry and equable. In Egypt are very few consumptives. Syria has very few. But do not go on the northern coast of the Mediterranean to find relief. There is plenty of consumption there, and it will originate there. It is cold, damp, and wet at four o'clock in the afternoon.

So far as other treatment is concerned, I know little about it. If I had consumption myself,—and that is often a good way to answer these questions,—I should try and digest cod-liver oil; and I believe I could do it, because I have been able to do it several times when I have needed anything of the kind; and I believe that a majority of people can. I would not use it in large doses, neither would I depend upon that alone.

The new treatment which our French friend introduced the other day, of injecting carbonate of soda and sulphuretted hydrogen into the rectum, I do not believe in. The reports I have from friends of mine who have practised it give me no confidence. Some of those articles are supposed to kill the bacilli, which may be of service, like the fennel and acetic acid and carbolic acid; but the reports are not sufficiently extensive to tell us. Injections into the cavities are of very doubtful utility. My treatment would be high living, including what Dr. Stackpole was talking about—a milk punch sometimes. I would use counter-irritation, and I would put the patient into a high and dry climate.

By a member.—Has the doctor anything to say of the Isles of Shoals is a good region for consumptives?

Dr. HILAND.—I would send them on to a mountain instead. There is relief to the breathing apparatus by going from a cold to a warm climate. If you have a bad cold, and go into the tropics, it relieves you. Mere bronchitis, without anything more than that, does get well by going into a warm climate.

Dr. CONN.—In the discussion which has followed the reading of this paper, it has occurred to me that the writer touched the vital point at the close of his essay, when he spoke of prevention rather than cure. It seems to me that when we are laboring to find the bacillus, we are looking for effects of a cause that is behind that. I am more and more convinced that there is something which depresses the vital system to that point where there is a breaking down of lung tissue or of the mucous surface, and that this bacillus is a product, and not the direct cause. I am more and more convinced, from what I have seen, that a damp atmosphere and a damp soil have a direct effect upon the nervous system, whereby the vitality is lowered, and the patient is ready to take on some disease. If there is predisposition to consumption, that is what will prevail first; and when the system is still further depressed, and we get to a certain point, assimilation is lost. Dr. Hiland speaks of counter-irritation,—croton oil, and such things. Now what does he do? He labors to excite the nerve centres to so act upon the digestive organs that assimilation may take place, and his patient start up the hill. Now, how many times we

have seen patients take a new start simply because they have tried some new remedy that was stimulating in its character, whether it be Dr. Stackpole's milk punch, or something else! The patient took a start, and went up hill; and then, as his friends say, he took cold, and went down hill again. Now, did that patient take cold? Did he not get to a point where nature ceased to help any further? I believe there is something behind the bacillus that we find as a product, and that the depressing influence upon the vitality of the patient himself, caused largely by dampness, is the way it is effected.

Dr. LATHROP.—I think in consumption there are certainly two factors that are known to exist, although one of them is still largely in the dark: it is the same fact that exists in measles, or that exists in any contagious disease,—that is, predisposition, as Dr. Conn says—predisposition to the bacillus. If you consider measles in a general way, you cannot tell by examining anatomically, physiologically, or in any other way, whether a man is predisposed to measles or not. No man living can tell, by any process of examination, whether or not another has had measles; but there is a difference between the man before and after, and that difference is simply predisposition. A man who has no predisposition must gain it before he can have consumption. How he may gain that predisposition was stated by Dr. Hiland—exposure in a wet situation. All men, perhaps, cannot get that predisposition from that cause alone; there may be necessarily something hereditary. Every man is born with a predisposition to measles. He loses that predisposition when he has had them. What is lost we do not know. We are just as ignorant in consumption what that predisposition is, but there are some cases that we know are caused by predisposition. One person in a family may die of consumption, and the rest escape; here, again, we may see a whole family go, one after another. There is predisposition, and the specific cause—exposure. One man may live in a wet region, and be in a feeble condition for years, and have no consumption; and another man in the same surroundings may die within a year of consumption. In one case there was predisposition, and in the other there was not.

Dr. BULLARD.—I wish to inquire of Dr. Watson and Dr. Hiland what they think of the contagion of consumption; and

if there be contagion, what it is, how far it extends, and what its pathological condition is.

Dr. WATSON.—I wish that I were able to answer Dr. Bullard's question. I confess I am not; and doubt if any other person is fully competent to answer the question in detail. It is generally conceded that consumption under some circumstances is contagious or infectious,—at least many believe it to be. I belong to that class. I think that in many respects Dr. Lathrop has hit upon an apt illustration of the disease. It seems to me that there must be something that we call predisposition; or, in other words, a certain condition of the system must exist before it receives consumption or any other disease. Now, what that exact condition is I suppose no man knows. I confess I am totally ignorant; but at the same time it is evident to any observer that such a condition does exist, and that in addition to a predisposition there must be certain other factors in order to produce the disease. Now, while I believe in a bacillus tuberculosis, I think that there are other factors necessary in order to develop the disease; in other words, that in a strictly normal condition of the system there is an ability to resist the infection of the bacilli. At the same time, I do not know that investigation has gone so far that a definite answer can be given to the question which Dr. Bullard asks. Investigations are now rapidly advancing, not only in regard to consumption, but other diseases belonging to the zymotic or the germ classes.

Dr. ROBERTS.—I have not been very fully satisfied myself as to the original cause of tuberculosis. My idea is, that the nerve centres—the brain and the spinal cord—are the seat of life—the nerve force. Now, if by any means that is interfered with, if there is exhaustion there, not the usual amount of nerve force, what is going to be the result? The machinery of the body somewhere will give out. It often follows a severe disappointment. I have known a mother to die of consumption who had lost an only boy. I have known a young lady to pass away with consumption, her intended husband having died. Here is a depression of the nervous energies causing bad assimilation; then there will not be sufficient nutrition to keep the tissues together, and you are going to have ulceration, or can-

cer, or scrofula, in some organ of the body, from a want of sufficient material to keep it together. My impression is, that a depression of the nervous system and want of nerve force, and, as a consequence of that, poor assimilation of food, are the prime factors in consumption.

Dr. STACKPOLE.—Dr. Bowditch thought that with a generous diet to sustain the system and keep up the vital powers, and a healthy locality where the air was dry and the surrounding circumstances favorable to health, there would be no danger of consumption. Of course, on wet, clayey ground every one would be likely to be affected in the same manner, some perhaps more than others; a predisposition might be developed that would carry some off quicker than others. I think Dr. Bowditch advocated among the first the use of cod-liver oil as a remedy to keep up the vital energies.

Dr. OSGOOD.—I am yet young in the profession, but I have had a few cases that I have studied with care, and from them I have formed this opinion, that it is caused either by infection or by predisposition. What I mean by infection is, that in two or three cases there has been a previous pleurisy with effusion, and previous pneumonia and acute bronchitis; and they not getting thoroughly cured from that infection, the germ or bacillus begins at that point; and the three cases I have mentioned were in that exact spot,—that is, at the lower part of the lung instead of the upper. Maybe I am wholly wrong, but that, in my simple experience, has been what I have seen.

INFLUENCE OF ALCOHOLISM ON SURGICAL INJURIES, TREATMENT, &c.

BY D. S. ADAMS, M. D., OF MANCHESTER.

To be ingenious in experiment, acute in observation, accurate in reasoning, and pointed in expression, are the aims and objects of scientific training. How strange that men with the same discipline should arrive at such different conclusions! Hence the avoidance of discussion in this article.

In the practice of medicine we sometimes meet with cases that surprise us, puzzle us, annoy us, and completely baffle our skill, and yet they appear at our first visit simple forms of very simple diseases, in apparently good subjects. We soon learn, however, that there is an under-current that is carrying the disease along with such rapidity that before we realize the danger our patient is stranded upon breakers far beyond the reach of medicine.

Just across the street we may have another patient, taken with the same disease, where the symptoms are much more severe at the outset; and we may be equally surprised at the rapidity with which the system throws off the disease, and crawls out from under its influence.

This being the case in medical practice, how much more frequently do we meet with similar experiences in surgical practice. To-day, we are called to dress a simple wound in one that would be pictured as robust in health; we use all the antiseptic precautions; we watch our patient carefully; we spare neither expense nor pains to give him the most skilful attendance at our command; and yet it inflames, it suppurates, it

heals slowly, certain portions of it slough, and after a severe struggle of from four to six weeks we get it healed, and begin to congratulate ourselves, when we are summoned to the case again, only to find it broken open, and in a worse condition than when we first saw it. With faltering courage we again begin treatment, when, nine to one, by the advice of some ancient Minerva (who had a son injured twice as badly, to which case she only applied a little fresh tallow or pounded mullein leaves, and he lost only four or five days, and who thinks, from her stand-point and great experience, that this could not have been treated properly) we are dismissed from the case.

Fifty similar injuries in our own hands have all healed kindly, and never given us an uneasy thought. We search for the cause;—the family history is good; we exclude syphilis; we even exclude that common and almost universal contaminator of man—scrofula; in fact, we find nothing hereditary that should interfere with healing,—but we do find that our patient was like

> "Maginn's most elegant fellow,
> Whose practice each cool afternoon
> Was to get most delightfully mellow"—

or Byron's carrier from Southwell,—

> "A carrier who carried his can to his mouth well"—

or, perchance, he lived near where St. Patrick

> "Tumbled the snakes into the Atlantic;
> Hence not to use water for drink
> The people of Ireland determine,
> With mighty good reason, I think,
> Since St. Patrick has filled it with vermin,
> And vipers and such other stuff"—

and to this habit of drink we are forced to ascribe our ill success.

Young man, it is these unfavorable cases (where a vitiated constitution baffles your skill) that ruin your business, for they will spread with the rapidity of cholera far beyond the circle of your acquaintance, and infect the mind of every person they reach. They will travel on eagle's wings, while your success-

ful cases, where your painstaking skill has saved the lives of your patients, and you are entitled to great credit, are ensconced in the shell of a snail, and only move when he shoulders his habitation and leaves his slimy trail a few lines in the rear. But this is the frequent lot of all surgeons, and in our common misery we sympathize. But with those who spend their leisure with "wine, wit, and beauty," or voyage on the "sea of life whose beach is the goblet's brim," let our prognosis be cautious, and let us say frankly, You have worshipped too faithfully at the shrine of Bacchus for us to expect the best outcome,—thus fortifying ourselves against unfavorable results, and not voluntarily making ourselves scapegoats to bear their sins.

To meet these cases successfully we must know the condition of the system, and through what morbid changes it has passed, and what remedies will counteract those morbid changes. Unfortunately, we know but little of either: the profession has too closely followed fashion in medicine, hanging its knowledge upon a few facts here and there, and filling in the interstices with a chaos of isolated assertions and contradictions, innocent of the parentage of reason, to reduce its principles to a science. Our knowledge of human pathology but mirrors before us the many years of misdirected and unrequited research in many of its branches, while the aetiology of disease is just beginning to take its first steps. In the coarser branches of pathology we have made fair progress, but in those branches that deal with cells and cell-life we are still very ignorant.

Our knowledge of therapeutics is nowhere better illustrated than in the vexed question of the physiological action of alcohol, which stands before us a lamentable monument of our utter ignorance of vital chemistry. It is the foot-ball of therapeutics, kicked about, by chemical and physiological experiment, from a stimulant to a sedative, a tonic to a depressant, a digestive to a retarder of digestion, a pyretic to an antipyretic, an aliment to a non-digestible element that is eliminated from the system as it enters, from the very elixir of life to the most veritable bane of all vital processes. Yea, it has been kicked nearly through the materia medica, until it has had all its vaunted virtues kicked out of it; and it is to-day without a home, a sort of a

good-natured vagabond that has been married into and divorced from more medical families than any other therapeutical agent, claiming at the present time a close relationship to the anesthetics: but they, too, seem to be ashamed of it, and the pedigree is not quite fully established. Hard luck for one that has presided over politics, and formed a material part in the history of every nation; been toasted in the banquet-hall; been the hero of many a novel; been woven into song, and breathed forth to the world in the sweetest tones of the human voice; been lauded and flattered by nearly all poets of all ages; slept with kings, queens, emperors, and rulers, and been the bosom companion of the highest potentates on earth; had a quiet resting-place in the sacred scriptures, and even symbolized the blood of the Saviour; yea, been transformed into a god, and worshipped by all Christendom and part of heathendom,—to be thus kicked about by the medical profession.

> "Wise were the kings who never chose a friend
> Till with full cups they had unmasked his soul
> And seen the bottom of his deepest thoughts."

But, alas! the world had nothing with which to unmask the soul of alcohol ere they chose it as their friend. Even all the ages that have elapsed since have but partially unmasked its treacherous soul.

However, we have learned that alcohol in excess starves the nerves, paralyzes the vaso-motor system, particularly that part controlling the smaller arteries and capillaries, degenerates the unstriped muscular fibres of the vessels, diminishes the fibrin elements and red corpuscles of the blood and increases the watery portion, interferes with the growth of vital cells, diminishes the amount of waste material, such as carbonic acid, urea, uric acid, etc., and favors fatty infiltrations, fatty degenerations, or cirrhosis of all the organs of the body.

In addition to the above, it causes congestion and chronic inflammation of nearly all the viscera. I believe I am only claiming here what is generally conceded by the profession, as the result of common observation as well as experimental investigation. Certainly every organ in the body is largely supplied with capillaries, and if they are dilated the organ must be

congested; and the dividing line between congestion and chronic inflammation, congestion and fatty and fibrinous infiltration or degeneration, has never yet been fixed. Now let us examine, and see what bearing these conditions have on repair.

Normal repair is a physiological process that closely resembles development and growth, so far as the growth of the new tissue is concerned; that is, it is produced in both cases by embryonic cells in the blood serum. Whether these cells are the result of cell division or cell multiplication as claimed by Virchow, or the white corpuscles of the blood which have exuded from the capillaries and migrated to the point to be developed as claimed by Cohnheim, makes but little difference in normal repair. The capillaries are closed from the margin of the wound back to the nearest anastimoses with coagula, and dilated above from increased pressure. This closing of the capillaries prevents an over-supply of blood to the parts, and regulates the supply of pabulum or building material, as repair requires a definite amount of pabulum or good material delivered at a certain point in order to do its best work. It therefore must have a regulating force, which probably comes from the nerves and the normal elasticity of the tissues.

When the pabulum is deficient, the repair is retarded; and when in over-supply, the physiological process is converted into a pathological process, and the part is said to be inflamed. When all goes on well, the cells change into spindle-shaped or formative cells, while the intercellular tissue, of which we know but little, becomes more dense: then the spindle-cells change into ordinary connective tissue corpuscles. This is normal repair in a healthy subject. In the alcoholic subject, the starving of the nerves weakens them, as we see manifest in the tremulousness of the drunkard, thereby weakening the contractile stimulus of the muscles and lessening the tension of all the surrounding tissues, which must interfere with and greatly change the supply of pabulum; the paralysis of the vaso-motor system allows the smaller vessels to dilate, which soon becomes permanent, and the watery condition of the blood and the atonic condition of the surrounding tissues both favor the transudation through the open pores of the dilated vessels. The degenerated condition of the vessels destroys their elasticity, and enfee-

bles them so that they are unable to respond to any amount of stimulus that may be brought to bear on them. The paralysis, the degenerated condition of the vessels, the atonic condition of the surrounding tissues, and the watery condition of the blood, combine to prevent the plugging of the capillaries from the margin of the wound back, which, together with the transudation, allows a constant drenching of the wound, keeping it immersed in this softening solution, and sometimes causes troublesome hemorrhage. The lack of fibrous elements and the reduction of the red corpuscles diminish the healing properties of the blood, and the effect on the vital cells cripples the builders themselves, while the lowering of oxidation retains the older tissues, from which urea, uric acid, and carbonic acid are formed by oxidation, and gives more or less second-hand material for repair to work with. The morbid condition of the viscera, especially the stomach, liver, and kidneys, must exert a depressing influence on the whole system, aside from its interfering with the administration of remedies, which, with its influence on the nerves, sometimes results in traumatic delirium or traumatic delirium tremens. So, instead of having a normal, healthy condition,—the best condition for repair,—we have substituted a low anaemic condition of the general system, an inflamed and treacherous stomach, a poorly working liver, kidneys that are liable to throw a good share of their work on to the skin and lungs, a nervous system that is broken, a heart that is feeble, and blood that is poor in all the elements that are needed to repair and sustain the system. In fact, we have a vitiated condition of the whole system that renders it more susceptible to deleterious influences, while near the wound we have a lax, spongy tissue, with open capillaries and open lymphatics that are ready to take up any poisonous material that may be generated in the wound. Hence the comparatively large number of cases of lymphangitis, erysipelas, hemorrhage, diffuse phlegmon, gangrene or spacelus, and septicaemia and pyaemia, in the traumatism of drunkards.

How can we best cope with these morbid conditions? is the important question, for the knowledge of evil availeth nothing without a remedy. I must confess that none of the methods of treatment employed by me have been very satisfactory, although

quite an improvement over no treatment directed specially to the alcoholic condition. I hope many of you have met with better results. Above all, I would advise dressing the wound so you can get at it easily; then watch it closely.

You will rarely, if ever, get primary union. In fact, it is so rare that I do not expect it, and therefore treat my patient accordingly.

The drainage is very important in these cases. With open vessels you cannot get it too perfect.

To seal one of these wounds, I would expect, and be very much disappointed if I did not get, serious results. Antiseptic measures are of first importance when properly applied. Antiseptic measures very often disappoint us, the wound suppurating in spite of the greatest precautions; therefore the ordinary method of closing up the wound with antiseptic dressings is often dangerous.

Immersing the wound in a weak antiseptic solution when it can be done, as in cases of injury of the hand, forearm, foot, etc., has given the best results I have ever obtained. In fact, I believe it has saved a number of arms that I could not have saved in any other way. I have usually had made a little tin trough that I could lay the hand and forearm into, with the hand end of the trough covered back a few inches in order to get an easy position.

Markoe's through drainage or through injections of antiseptic solutions has given next best results. I have no doubt but that it would give the very best results if it could be carried out faithfully. But in private practice this is a difficult thing to do. For often you are obliged to make counter-puncture, to which the patient will usually object; and the lack of experienced nurses, and that everlasting fear of being hurt by these broken, nervous subjects, make it very tedious and troublesome to the surgeon in attendance.

Gentle support by means of light bandaging is often beneficial, saving the parts to some extent from the embarrassment of over-drenching, and I think in some cases preventing septicaemia. However, support must be cautiously applied. Astringents applied to the wound are of great service in many cases. I think position has a great influence over these cases. Often

by elevating the limb we can reduce oedema and swelling and start up granulation when the healing process has entirely ceased. Cold or moist heat is of doubtful efficacy, while dry heat is often of great service.

And lastly, and most important of all, is cleanliness. All the measures above advised point to cleanliness, and any and every other method that you can adopt that will remove septic materials and keep the wound clean you will find of service to your patient.

We must not neglect the general health of our patient. Iron in the form of the muriated tincture, and quinine, or strychnia, are nearly always indicated and are nearly always beneficial—the quinine or strychnia to tone up the stomach, while the iron fattens the blood, and exerts its influence on the capillaries.

To give alcohol is too much like *similia similibus curantur*, and too often warms to activity the chilled and dormant serpent, the wounds from whose fangs are not yet fully healed. But if, perchance, the patient escape this, wherever I have seen alcohol used in these cases I have believed it to be injurious. Certainly I have seen great improvement in some cases after the use of it had been stopped. Astringents are generally beneficial. Avena sativa is useful in many cases, exerting its influence on the nerves and stomach. Caffeine acts similarly. The bromides do well to allay irritation, which is sometimes very troublesome, and in small doses astringes the capillaries. Lupulin also acts well to allay irritation and tone up the stomach, and I consider it one of our best remedies. Ergot, when the stomach will bear it, fulfils the indications theoretically the nearest of any remedy, exerting its influence as a powerful stimulant of the vaso-motor nerves. I say theoretically, for often practically either the nerves do not respond to the stimulus, or the capillaries do not respond to the nerves, on account of their degenerated condition. But when it exerts its specific effect, it is the remedy above all others. Opium and other remedies may be used when indicated, except such as paralyze the vaso-motor nerves or destroy the blood.

Mr. S., an American, aged thirty-five, compactly built, and in apparently good health, an alcoholic and the son of an alcoholic, was injured in a shoe-factory by the head of the heel-cutter,

fracturing the metacarpal bones of the first and second fingers, and crushing the tissues in a semicircular line from between the second and third fingers to about half way between the palmar crease and the thumb. Two surgeons saw it, and considering it a slight injury that would soon heal, dressed it accordingly with antiseptic dressings. Two days after, they found the injured portion dead, and amputated, and again dressed it antiseptically. Septicaemia, fever, and delirium soon followed, and the inflammation extended to the wrist and forearm. For four or five weeks he trembled on the borders of eternity, then gained a little for a week or two, when he was filled up with whiskey and sent eighteen miles on the cars to Manchester.

I saw him within an hour of his arrival, July 10, 1884. His temperature was 101° F., the pulse weak but fair, and the hand was about half healed over, the hand, wrist, and forearm being considerably inflamed, with an opening on the flexor side of the wrist. I continued antiseptic dressings opening under spray. The next day he was very much depressed, and the night following I was called up and found him delirious with a temperature 103.4°, and the inflammation of the hand and arm very much increased. Suppuration extended up the forearm, when I made a counter-opening on the radial side at the junction of the lower and middle thirds, and commenced through injections of one per cent. carbolic solution. I injected from two to four times per day, and dressed it antiseptically. It gained but little, if any,—so changed to corrosive chloride at the suggestion of the late Dr. C. F. Bonney.

He became rational about four days after his arrival, and remained so most of the time. I continued the corrosive injections till about the 5th of August, when erysipelas lighted up, ran up the arm, and spread over the body, sparing only the scrotum and lower extremities below the knees. From this I got two small abscesses, one over the outer border of the left scapula, and the other in the right side of the neck. At the beginning of the erysipelas he was very delirious, with tremor and hallucination, and for one night had to be restrained.

From the first of the injury the stomach was very treacherous, and had to be handled with the utmost care. The bisulphate of quinine in one grain doses was borne part of the time.

Just before the erysipelas started he bore iron, and as soon as the erysipelas subsided the hand and forearm were immersed in a weak carbolic or corrosive chloride solution, and he was given iron, quinine, and ergot internally. He gradually gained, and came out of it with contracted fascia of the hand and wrist. His hand is of some service, and well pays for the trouble. During my attendance Drs. C. F. Bonney and O. D. Abbott of Manchester, and Dr. C. F. McQueston of Nashua, saw him with me. This was a desperate case of alcoholism, and we despaired a number of times of saving the life. We did not dare to amputate for fear of more serious results than we were then getting, so we fought it through, sharing the victory about equally with alcohol.

It is useless to multiply cases, for poor, weak, tottering human nature, with all her hereditary infirmities inbred from the time when Noah "drank so deeply of the purple grapes' sweet poison," is prone to

> "Drink and smile, and learn to think
> That we were born to smile and drink."

This weakness, filling one third of all our surgical beds, must furnish an over-supply of these injuries, and every surgeon of experience must be reluctantly familiar with these vitiated cases.

The influence of the medical profession on matters of this kind must be potent, and, ever remembering that "the noblest motive is the public good," and that "men resemble the gods in nothing so much as doing good to their fellow-men,"—the sacred mission of our noble profession,—let us grasp tightly the knowledge we have, and, pushing our researches further and further, with keener observation whetted by increased experience, learn more of the effects of this fell destroyer, and better how to battle against its withering mirages, and learn how we can more effectually repair its degenerated tissues, not forgetting that the great proportion is in the abundance of our patients not more than part of any other disease.

DISCUSSION.

Dr. [illegible] of New Hampshire.—The surgeon [illegible] [illegible] the best general [illegible] [illegible] the practitioner.

Physicians must present facts, not fancies; the absolute, not the absurd. They must always stand forth to point toward truth in great questions, agitating moral, social, religious, and scientific thought. In this paper we have a truthful presentation of one phase of one question. I hope the discussion will be full, fair, and candid. Let us be neither fools nor fanatics. Let us present the truth as we find it. Thus sometime and somewhere we shall find the point of reason and safety.

Great emergencies demand great energies. Great disasters to the human body demand a full exercise of its vital forces for recovery. All the unimpaired forces of the body, mind, and will are needed. This is the universal experience of physicians and surgeons. When the life forces are devitalized, perverted, and unbalanced, then the reparative processes are tardy, incomplete, abnormal, or totally defective. This is true, whatever may cause the impairment.

Now, then, the writer demonstrates that the prolonged, excessive use of alcohol does thus impair the life forces; hence, recoveries from surgical injuries are tardy, incomplete, abnormal, and often totally defective, in those having alcoholism. This is the plain, positive, and practical teaching of the paper. The writer declares that alcoholism starves the nerves; paralyzes, thus dilating, the smaller arteries; diminishes the fibrin and red corpuscles, and increases the water of the blood, which with the dilatation facilitates transudation of the serum, constantly drenching the wound and preventing healing; diminishes waste, retaining old tissues for repair; interferes with the growth of vital cells; produces fatty degenerations and infiltration; destroys the elasticity of the arteries, causing atheroma; prevents plugging of capillaries, as in normal repair; and leaves open the arteries, capillaries, and lymphatics to absorb poison.

Now the above are generally accepted facts, and can be demonstrated to a certainty. The writer has taken no extreme position.

Of treatment, the points are,—Dress the wound so as to be examined easily and often; do not expect primary union; antiseptics are of first importance, but often cover the wound so you cannot get at it; immersion in weak antiseptic solutions gives best results in case of hand, forearm, etc.; Markoe's drain-

age or injection useful, but difficult to do in private practice; gentle support by light bandage useful, preventing drenching and septicaemia; position aids weakened arteries; dry heat and astringents of use; general support absolutely necessary; strychnine, quinine, and iron; capillary astringents, as ergot and bromides.

I have briefly recounted the main points, that we may more easily deliberate upon them. After considerable experience with the influences of alcoholism upon disease and surgical injuries, I can fully corroborate the statements in the paper. Alcoholism seems to me to have nothing specific in it. It is but an impoverishment of the blood, a modification of the normal cell action, and an alteration in the tissues, such as might occur from other and various causes. Excessive and prolonged labor, imprisonment, insufficient and improper food, exposure to hardships, mental distress, conditions conducive to scurvy, may induce the same or a similar condition of nerves, blood, and tissue.

The results arising from alcoholism are precisely the same as would arise from the above circumstances. Hence no new principles of treatment or new theories of pathology are needed. Disease and wounds are to be treated precisely as they would be under similar and constantly occurring conditions. In my opinion, nothing can or need be added in way of treatment to that usual in asthenic cases simply because we have a patient under alcoholism. But just here an important question does arise. In cases of alcoholism, where we have grave disease and injuries, shall we administer alcoholics? For years the notion has universally prevailed that to topers, drunkards, under disease or wounds, we must administer increased doses of alcohol. Have we been right, or wrong? I believe we have yet to reconsider this whole matter, and possibly to rearrange our whole line of action.

Dr. S. C. Whittier, of Portsmouth.—I think Dr. Adams's paper is very valuable and instructive, and I was glad to listen to it. I was also very glad to listen to the comments upon the paper by Dr. Child; but I observe that one or two remarks that the latter gentleman made entirely disagree with the paper. He says, in the first place, that he believes in the paper—be-

lieves that alcohol produces all this trouble; and yet, almost in the next breath, he says that prolonged labor will produce the same thing. In fact, he does not believe that alcohol has very much to do with it. I think the last remark is really true. I believe that in the cases Dr. Adams has spoken of, one or two particularly, if, under ether, the wounds had been thoroughly cleansed and then thoroughly treated antiseptically at the time, and at all times afterward, and covered with a solution of iodoform, the alcohol would not have kept the wound open. I believe, in all these cases, if the first dressing of the wound be thoroughly antiseptic, the wound thoroughly washed out, and all broken down tissue removed, the wounds will completely heal. I do not say but what you may have a greater tendency to suppuration than you would have in cases where it had not been a common practice to use alcohol; but I do believe in the treatment of those cases antiseptically. I believe that the result would be union by first intention. I believe that is the conclusion come to by all our best physicians up to this time, or a majority of them, to say the least. I do not know that there is very much to criticize in the paper further than that. I like the doctor's paper very much, and think it is timely, perhaps, in this town especially, as we can get no alcohol. That fact may have inspired the doctor. I think that Dr. Adams and my friends came here to the temperance convention, not intending to come to this meeting!

Dr. Roberts.—I think the frequent dressing of wounds, no matter how made, where there is suppuration, washing them out thoroughly, putting on your antiseptics say every day and sometimes twice a day, is about as reasonable as I was when quite a small boy. I went to an old nursery, and, after a good deal of hard work, I got up an apple-tree. It had a tap root perhaps a foot and a half long, and with a top as big as half a bushel basket. I could not dig a hole deep enough to thoroughly set it out, but I set it out as best I could; the next day I went out and pulled it up a little, to see if it was growing. Now, you thoroughly wash a wound that is healing by granulation every day, and what are you doing? You are destroying that granulation. I have had a little experience on this subject. I have been called sometimes in consultation, where wounds

have been in existence for months, being thoroughly washed every day, and encarbolised cotton put in the wound where it was granulated; and I have ordered different treatment, and the wound got well. I believe there is an excessive use of drainage tubes, especially where there are fractures and compound fractures, and suppuration takes place. I believe, by the excessive use of drainage tubes you are just as likely to carry off with the pus the bony matter, thinner than water when it is thrown out, as you are the pus. Nature is usually equal to her task, if you will keep the wound from exposure to atmosphere, and let the pus out that comes to the surface. It is not true physiology, that what is thrown out is reabsorbed by the same surface: there is no such physiology as that. The tendency of deleterious matter is to come to the surface and run off. Let it run, and do not interfere with it, and trust in God Almighty.

Dr. WHITTIER.—I want to say one word more, which was suggested to me by the remarks last made,—"if you keep the atmosphere away from it." Now there is where you get your septic influences. If you wash the wound out thoroughly, and destroy all micro-organisms, it seems to me there is no probability of any surgical fever, as we used to have it, two or three days afterward,—scarcely any rise of temperature. In many of the most severe laparotomies to-day there is not a rise of temperature above 99° for the most severe operation. And it is the keeping out of this same atmosphere, which is loaded with micro-organisms that produce septic troubles.

Dr. P. A. STACKPOLE, of Dover.—Talking about alcohol, I often prescribe it; I think I have saved many lives—I mean alcohol in its various forms. It is alcohol that we are after, and that stimulant nature requires under any circumstances; and we have to have it in order to treat disease successfully. It is food, because it helps assimilate food. That is my experience in regard to alcohol. Excess of it—there is the mischief, and there is all the mischief. But you never can change it. God made this world as He intended, and I presume He made us with different appetites and different temperaments; and He made some, I think, with a strong desire for alcohol in its various forms. God did not mean to make us perfect. If

He had made us perfect, we should not need any doctor or minister. He intended to make us just as He did make us.

I understand in Concord that you have reformed, but I do not understand that in Concord or in Dover you drink any less than you ever did. Alcohol is driven from respectable places, into garrets, cellars, and low dives where respectable people do not like to go; and respectable people, if they had it, would not drink it to do any harm. They have been in the habit of drinking various kinds of spirituous liquors, some of them. I treat them as skilfully, I think, as those that never touched a drop. When you see patients with no blood in them, and who never have smiles on their faces and but little flesh on their bones, they need stimulants. I do not give them much medicine, but I treat them in the way that I think nature indicates.

MILK, AND SOME OF THE THINGS WHICH AFFECT IT.

BY FRANK BLAISDELL, M. D., OF GOFFSTOWN, N. H.

If any apology were needed for an article upon milk, it could readily be found in our registration reports, when we look them over and find that one fourth of all the children born to us fail to reach their fifth year. In other words, when we find that here in New Hampshire, favored by the Almighty with more than its share of Nature's gifts, we are losing substantially from our child population fifteen hundred citizens annually, apologies become superfluous. When we look for the cause of this mortality, we must, of course, study those things which go to make up the economy of child life, chief among which is food, and chiefest among foods is milk.

The Almighty never furnished but one food for a baby, and that he put into the receptacle he made for it on the chest of a woman; and a practical point arises just here. We would be fulfilling our object in life better, if, instead of yielding to the importunities of some of our patients, who prefer fashionable life to the charms of motherhood, we, as physicians, would use our positions to insist that every woman who can must nurse her child. However, the statement just made that the Almighty never made but one food for a baby, does not invalidate the fact there are some good substitutes for it; and where a woman cannot nurse her child, the use of the substitute becomes imperative, and the best thing we have is the milk of the lower animals. This to us means cows' milk.

Cows' milk is subject to disturbances that a woman's milk is

not,—chief of which are, that it must be drawn from the lacteal glands of the animal, and be subject to outside influences, notably the influences of heat and cold, the diseases to which the animals are subject, the food which they eat, its powerful absorptive qualities, its being kept in receptacles of tin, and often its transportation for long distances over country roads and by railroad: all of these things affect the quality of milk as a food. How to reduce these disturbances to their minimum has been our work for a good while; and it is not in the hope of adding anything to what is known that I have written this paper, but rather with the hope that a renewed calling of our attention to this subject will keep it more constantly before us, and lead us more critically to watch for and prevent the phenomena arising from feeding to a child a food that poisons it.

RECEPTACLES.

One of the things which affect the quality of milk is improper care of the vessels which contain it, as well as improper care of the milk. In my own town, milk which is to be sent to Boston is treated in this way: The milk-cans are brought up on the train reaching town at 5.45, and are thrown out in the freight depot and remain until the next morning, when some are taken and carried home by those who bring their own milk, but the larger part by some one hired for the purpose, who distributes them over a route five or six miles long. Now I have seen these milk-cans lie in a man's dooryard from eight o'clock in the morning of a hot August day until five in the afternoon, and I do n't know how much longer; and if there is any article of tin more battered and disagreeable looking than one of those cans after being some time used, I have yet to see it. These indentations afford a resting-place for particles of milk, which, after having the rays of the sun poured on it for the larger part of the day, must decompose; and I imagine these particles remain undisturbed by the hasty washing given them, but remain as germs to poison the milk when put into them. The milk is drawn from the cow very early in the morning, so that the collector will have time to get it to the depot in season. It is often strained directly into the pails, which often set on a

bench directly behind the animals. And I have seen them carried to a sink, sometimes in the same room, put into water oftentimes dirty, which comes about half way up on the cans, and left to cool; but the milk collector comes along, and though the milk is but half cool, the stoppers are driven in, and this half-cooled milk is carried over rough country roads, sometimes a number of miles, when it is loaded on to the cars, and undergoes a churning process until it reaches Boston. Should you expect much success with treating the intestinal diseases of children with this milk?

TYROTOXICON.

It was observed many years ago that certain foods that had just begun to decay would cause symptoms of violent poisoning, and occasionally death; and numerous theories were advanced to account for it. But it was not until 1856 that Panum succeeded in isolating a ptomaine, which he called an "extractive putrid poison," and which he compared to curare and the vegetable alkaloids in its action on the system. Since 1856 much work has been done in isolating and identifying ptomaines, particularly by Selmi, who identified and characterized the cadoveric alkaloids. In 1885 Prof. Victor C. Vaughan, Professor of Chemistry in the University of Michigan, began to try to isolate the poison from cheese, and after two years of work succeeded in finding a highly poisonous ptomaine, which he called "tyrotoxicon." This is of more interest to us now than all the others, as being probably the pathological ptomaine which produces the violent choleraic attacks in children during the hot months. There are some things about tyrotoxicon that seem already to be fairly proved. One is, that it is a chemical body, produced by fermentation. Another is, that a small quantity only is necessary to poison a large quantity of milk. Now, in the case of the milk-cans which lie out in the hot sun, and into which warm milk is poured,—as I understand it, an almost infinitesimal quantity only would be necessary to have it develop rapidly in the milk with which it is mixed; and that if this milk is mixed with other milk, the process of poisoning would go on indefinitely. I do not know that this ptomaine could be pro-

duced by the fermentation going on in the milk-can; but I cannot see why it would not.

The symptoms of poisoning by tyrotoxicon, as given by Dr. Vaughan, are as follows: The attack is sudden and violent; there is nausea and vomiting, tenderness of the abdomen, watery diarrhœa, thirst, pain in the back of the head, nervous prostration and tendency to coma—symptoms almost indentical with those we call cholera infantum. A very practical point is deduced by the professor, which is, that in these cases of violent choleraic attack we must prohibit milk altogether. The thought might occur to us that by changing the milk for some freshly drawn from the cow, we should rid ourselves of the cause of our troubles. But this is not so, as this acid fermentation is going on in the intestines, and the feeding of more milk, even of unquestioned purity, would be but adding fuel to the fire. What we are advised to do is to give some meat or rice preparation, as a ptomaine in milk may be harmless in some other kind of food.

ENSILAGE.

Ensilage has been described by one writer as "sauerkraut" on a large scale. It is not a new thing. The ancient Syrians used to preserve their food in pits; but it was dried grain they used. In 1850 a Rev. Mr. Wilson gave an account of the German method of preserving green fodder. This process rapidly extended to France, and was first tried in this country in New Jersey and Maryland. I do not need to describe the process of filling a silo: it is familiar to all of us. But the changes the ensilage undergoes in the silo is of much interest to us.

The first change which takes place after the pit is filled, is fermentation. The vegetable matter undergoes oxidation, heat being evolved, the temperature sometimes rising as high as 140°. As I understand the matter, this high temperature is necessary. Unless we get it, carbonic acid gas is not evolved in large enough quantities. This is a practical point, as the pressure of this gas is depended upon to keep out the air that would otherwise enter and produce putrefaction or destructive fermentation. And it is also claimed that the large amount of heat evolved kills the germs that would otherwise cause the mass to decom-

pose. But this claim seems absurd to any of us who have seen the few plank and stones put on top of the ensilage. It is not tight enough to exclude the air, neither is its weight sufficient to press the air out; and however correct as a theory, the fact is that putrefactive fermentation does take place to some degree, and that acetic and lactic acids are formed which give the acid taste to the milk.

Another writer has likened the method of preserving ensilage, very aptly so, I think, to the modern canning process, which preserves food very readily, but conditionally,—the conditions being that the food must be used as soon as the can is opened. And while I believe, in the case of the silo, that it might preserve food readily if all the conditions were fulfilled, yet I cannot see why the ensilage would not spoil when the pit is opened, as readily as the fruit would spoil when the can is opened. As I understand the digestive system of a cow, it does not make so much of a change in the component parts of food as does the human stomach, and that a food fed to a cow is very apt to impart its qualities to the secretions, particularly that of milk. Now, in feeding ensilage to cattle, we are feeding more of the albuminoids than when we feed field-dried hay, and less fat, and the soluble carbo-hydrates, the analysis being as follows:

	Ensilage.	Field-dried Lucerne.
Albuminoids,	18.35	14.94
Fibre,	28.87	33.90
Fat, soluble carbo-hydrates, and alcohol,	38.95	44.22
Ash,	11.29	6.94

So that, if we admit the food as being an important factor in influencing the quality of milk, we must get from one a food considerably different from what we get from the other. And add to the ensilage-fed milk the acetic and lactic acid, and we have a much different food. After thinking of this matter for a good while, I have as yet failed to convince myself that fermented cornstalks are any better food for milk-producing animals than fermented grains from distilleries. This is not the only food that affects milk, but is of importance for two reasons. First, it is so universally used; and secondly, it is possible by good care to get a good sweet food from this process. I do not

believe in our system of feeding for quantity instead of quality. There are no better dairy products in the world than those of Switzerland. Yet a recent writer from that country says,—"The fine milk- and butter-producing animals of Switzerland are fed only on hay and grass the year through. High feeding and fancy feeding, with cotton seed and oil-cakes, ensilage and boiled fodder, and all messing of fancy fodder, are but little known in this country."

My attention was first called to this subject during the winter of 1882. My own little boy had been thoroughly weaned, and had for some time been having milk from a cow fed on hay and grain. For some reason it became necessary to change the milk, when the milk from an ensilage-fed cow was substituted, and he was soon seized with an attack of what in summer we should have called cholera infantum. The milk was suspected, and stopped, and the little fellow got well. Not wishing to condemn the milk, I waited for other cases, and soon got them,—all of which got well by stopping the milk. Since then I have had numerous cases, all of which ceased on stopping the milk. I do not wish to be understood as condemning ensilage entirely, but only to urge that great care should be taken to get it sweet and odorless. As it is often used, I am afraid of it in children and in convalescence.

DISEASES OF COWS.

I suppose we all believe that the lower animals have diseases analogous to, and some identical with, the diseases which afflict mankind. One of these, the "foot and mouth disease," has recently become of considerable interest by reason of its supposed relationship to scarlet fever. It is claimed, and with some reason, that this disease in cattle will so affect the milk that persons using it are not thereafter susceptible to the action of the poison of scarlet fever. This disease, as it appears among cows, is described by Dr. Councilman,[1] of Baltimore, as an eminently contagious one, characterized by fever, trembling, loss of appetite, reddening of the mucous membrane of the mouth, difficulty of swallowing, the appearance of the characteristic vesicles in the mouth and on the feet, and a peculiar

[1] Reference Hand-book of Medical Sciences.

affection of the skin, "irregular bald places appearing on the neck, ribs, and flanks, on which the skin is scaly, and when the scales are removed, a soft, red, velvety surface is left." Klein has isolated a micrococcus, which he says is constantly associated with the disease.

The pathological importance of this disease to us lies in the question whether the use of the milk from cows with foot and mouth disease will cause modified scarlet fever. Dr. Stickler, of Orange, N. J., who has studied critically the epidemic which occurred in Dover, England, in 1884, where 205 cases of a disease bearing a resemblance to human scarlatina were traced back to one herd of cows, found that of the families supplied with the milk,[1] "the members of eight families, who had previously had scarlet fever, escaped the epidemic;" that none of those who had the epidemic had since that time had scarlet fever,—and many other facts which deserve thoughtful consideration. I suppose we must consider this question under judgment. But in experiments to prove this question, Dr. Klein claims that cows inoculated with the micrococci of human scarlatina become affected precisely as did the cows in this epidemic. And Dr. Stickler seems to have proved, from his own experiments in inoculating children with virus from foot and mouth disease, that the inoculation renders them unsusceptible to the contagion of scarlet fever. Again: We have supposed that the follicular stomatitis of children was due to disordered digestion; but quite recently David, who has investigated the subject, says it is due to a similar disease in cows, and is caused by drinking the milk from cows with the disease. At any rate, it seems to be well proven that our cows are occasionally sick with diseases which poison the milk, and that an inspection of a herd of cows may often explain sicknesses which might otherwise be inexplicable.

Much more could be said about the absorptive power of milk—its sterilization during hot weather. Indeed, a book might be filled readily, but I do not wish to be the one to write it. There is evidently a lot of work to be done in this direction yet, and we have got to do it,—particularly our country physicians, whose opportunities for observation are better than

[1] Medical Record, December, 1887.

those in large cities. Let us, then, look this matter of poisoned milk up more thoroughly, and trust to our city brethren to help us out in results. To sum up this matter, the first thing needed is healthy cows; and some one should inspect them who knows what a healthy cow is. The office of milk-inspector should include the inspection of animals, and the officer should have such a salary as would enable him to do his duty without loss to himself. He should have the power of appeal to the local board of health, and through them to the state board.

Secondly, the cows must be supplied with pure water, pure food, and kept in clean barns.

Thirdly, good food should be provided for cows. Whether you believe with me or not that ensilage should not be fed to cows whose milk is consumed by infants, you will readily admit that some of it is not fit for food. Some hay contains noxious weeds that affect the milk. So do some pastures.

Fourthly. Clean vessels for the milk. These should be of glass. They are now made for this purpose without angles, of clear glass, so that the slightest impurity can readily be seen. In these the milk should be well cooled in running water, if possible, before the can is closed.

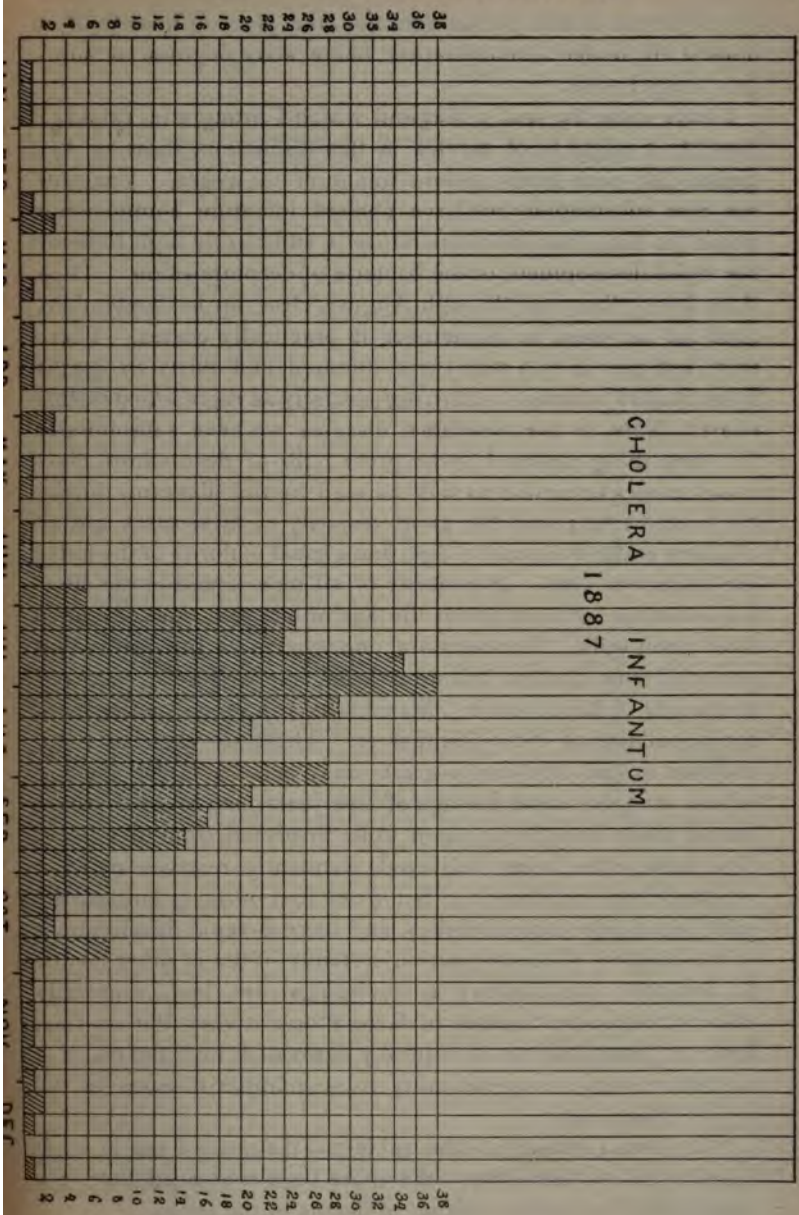
Lastly. I would have dairymen charge enough for their milk so that they could afford to do all that is necessary to produce pure, uncontaminated milk. If one half of the money could be spent by New Hampshire in providing pure milk for her children that she has recently spent in letting two rival railroad corporations fight each other, many a bright child might be living to-day whose loss parents are mourning. As for us, our position should be, that there is no food too good, no water too pure, no vessels too clean, no barns too well made, for the animals that we depend upon for the food with which to rear our children.

DISCUSSION.

Dr. I. A. Watson, of Concord.—I must say that I regard this paper as one of great value to the profession, but I confess that I am at a loss where to commence the discussion. The question is an exceedingly broad one, and in the necessarily brief discussion which must follow, only a few points can be taken into consideration. I had the pleasure of present-

ing a paper on this subject to the New Hampshire Dairymen's Association, bringing up substantially the points, with some others, which have been presented in the paper just read, and urging upon the dairymen of the state the importance of cleanliness in handling their milk. Now it is a fact, as shown in the paper, that too little care is taken of milk. We all know that it is the essential food of children; that a great majority, in fact nearly all, of our children are brought up upon milk in some form or other. Many of them are obliged to use milk obtained from the dealers, and the manner in which the milk is not unfrequently collected and handled is certainly attended with great danger. It is well known that there is no substance in nature used as a food that is so readily invaded by bacteria and other micro-organisms as milk. Biologists assert that it would be one of the best culture fluids in conducting experiments in the laboratory were it not for the fact that all forms of bacteria are so readily developed. It is barred out of the laboratory on that account.

I think no greater advance has been made within a few years in the investigation of food and its dangers than the discussion of tyrotoxicon by Professor Vaughan, of Michigan; and that he has discovered this chemical product there is no question, because his experiments conclusively show it. I believe his opinion with reference to the effect of this particular poison on the intestinal canal of children is correct. His conclusions point to what now seems to be the fact that this chemical substance is the product of a germ present in milk and some other foods. It is not known, I think, to-day, whether it is some unusual development of the ordinary bacteria of decomposition that produces this, or whether a distinct germ of a pathological nature is in some manner developed. But at all events it is now believed, and the experiments quite definitely confirm the belief, that tyrotoxicon is a chemical substance produced by a certain kind of bacteria. Now, then, if this be true, and if this particular bacteria be readily developed, as has been proven in the laboratory under Dr. Vaughan's experiments, we can readily see the danger that is incurred in the use of milk that is received from careless venders; and I think this idea is pretty well substantiated by our mortality rates. Dr. Vaughan asserts that the


CHOLERA INFANTUM
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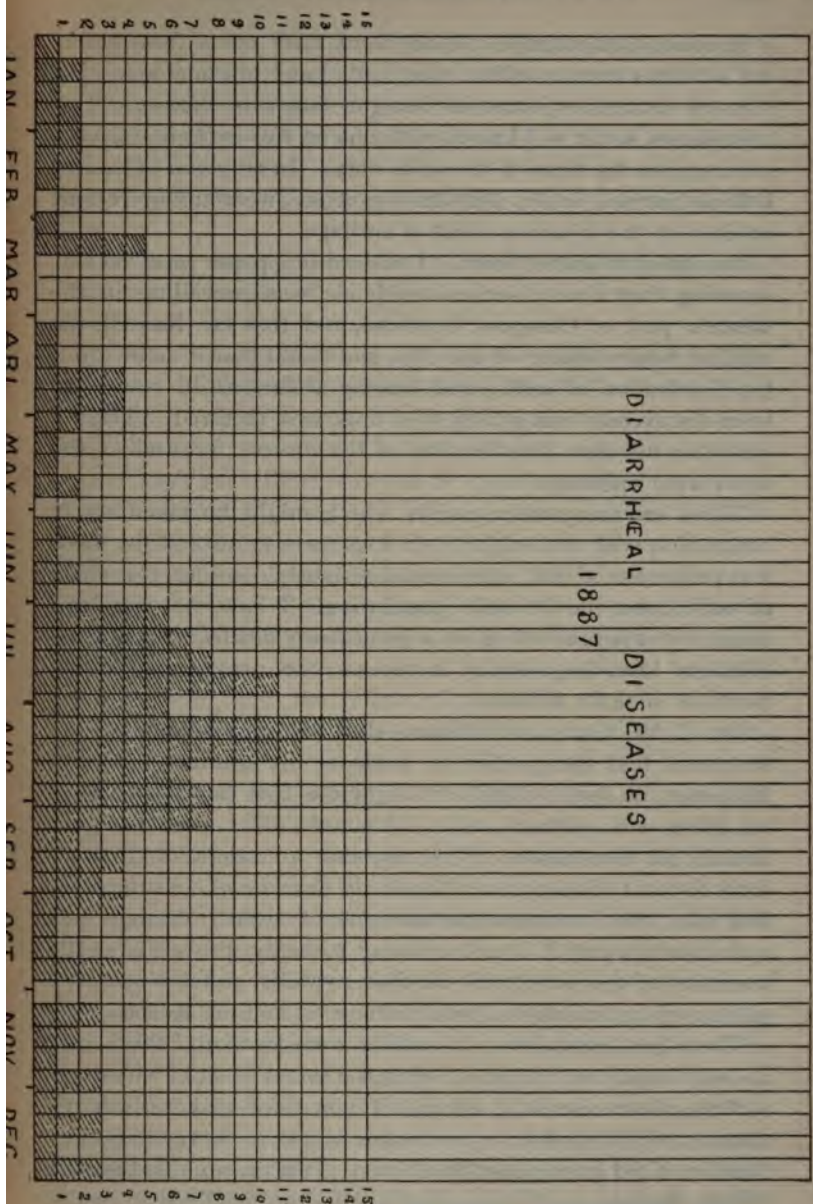
development of this poison does not take place ordinarily, if it does at all, under a temperature below sixty degrees, or summer temperature.

I have upon the wall a diagram which I brought in, thinking possibly it might be of service in this discussion, showing the deaths last year from cholera infantum by weeks. You will see that substantially we have cholera infantum commencing about the time that the temperature is sufficiently high to favor the rapid development of the bacteria of decomposition. Then these heavy lines run through August, clear up to September. And the last week in September it practically ceases. There were last year in this state three hundred and thirty-six deaths from cholera infantum occurring precisely as represented in this chart. Now, in the diarrhœal diseases we have substantially the same thing repeated;—the great bulk of deaths from diarrhœal causes occurred, as will be seen by the diagram, during the heated term; and the great majority of these cases are of children under five years of age, and a great majority of the latter are under one year. A majority of all represented in the cholera infantum list were under the age of one year, and of course lived upon milk. Furthermore, one third of all the deaths that occurred from cholera infantum during the year 1887 occurred in the city of Manchester. Manchester represents one tenth of the population of New Hampshire. There are a great many children in that city, and a great many persons under the age of one year and under the age of five years, and many of these are no doubt brought up upon milk furnished from the dairy. The milk, after being delivered, frequently receives no care whatever, the children are fed from foul nursing-bottles, the milk is put into unclean dishes, and there is rapid development of the bacteria of decomposition certainly, if not of other forms. In addition, the sanitary surroundings are bad, especially among the poorer classes of factory operatives; the nervous force of these children is naturally depressed, and the result is we have a very heavy mortality from infantile diseases in the city of Manchester.

The more I investigate the subject,—the more I see in what manner milk is cared for,—the more I am convinced that it is responsible for a great number of deaths in the state.


DIARRHŒAL DISEASES
1887
JAN FEB MAR APL MAY JUN JUL AUG SEP OCT NOV DEC

In relation to ensilage. Complaints have come from different localities as to its effect upon milk, but I am unable to give you any data in respect to its being a factor in disease. The complaints, so far as I know, with one or two exceptions, have been against the taste of the milk only. In only one case, and I think that was in Dr. Blaisdell's practice, were any objections made as to the injurious effect of ensilage.

In respect to scarlet fever. I noticed in a paper received this morning that a very serious epidemic was prevailing in the western part of Glasgow, Scotland, and that Dr. Russell, the efficient health officer of the city, had found that it came from the distribution of milk; and, tracing it further, ill cows had been discovered from which this milk was received. The report does not state the character of the disease from which the cows were suffering.

There are many other points which might be taken up in connection with this subject. It does seem to me that the medical profession of the state should seriously consider the effect of milk upon the infantile population. I have not the least doubt but it is productive of a great many deaths, simply from a lack of knowledge which is necessary to preserve milk in a healthful state for infants.

Dr. C. W. Gross, of Milton.—If I did not misunderstand a statement that the gentleman made at the commencement of his paper, he stated that he thought the best nourishment for an infant was mother's milk. I should differ with the gentleman, for this reason: If we take into consideration that almost two out of every seven the world over die of consumption, and take into consideration that one of twenty through our own country, which is not suffering so badly, probably, as the countries of the old world, die from syphilis, you can see at a glance what conclusion I would arrive at, and my reasons.

Then, gentlemen, there is another consideration, I think, and an important one. That is, when the infant is sick, when it is suffering from disease, I ask you if you think that the infant's chances are as good fed upon mother's milk in that condition as they are if fed in some artificial way. It is my opinion that the child's chances would be far better if fed artificially than in the natural way. I do not believe there is a gentleman before me

that questions the importance of pure, clean milk, where you are going to feed the milk. There is not a gentleman but understands the importance of good feed and good care. I would give more, other things being equal, for milk from a cow that is kindly treated, that never received a harsh word, that was never hurried to and from pasture, than I would from one that was.

The paper and the discussion are both worthy of our attention, and we can all of us approve, I think, of the statements in the main.

Dr. S. G. HILL, of Dover.—I want to inquire of Dr. Watson, who, I suppose, has made more observations and taken more pains to inform himself in regard to this matter than anybody else in the state, what is his opinion in regard to brewery grains upon the milk that is sold in various towns.

Dr. WATSON.—I have had no personal experience with the milk produced from cows fed with brewery refuse. I think there is only one place in the state where they are so fed, and of that I have no knowledge. I would say that the State Board of Health of Massachusetts have made the subject of milk a study, and have made numerous analyses of milk produced from cows fed upon the refuse of breweries, and in most instances the milk has, by chemical analysis, been found to comply with the standard required by law,—that is, it contained thirteen parts of milk solids as required by law, and the milk has not been condemned simply because the cows were fed upon such refuse. It is the general opinion, however, that the milk is not as good as is produced from other kinds of food. But so far as my knowledge goes, no complaints have been made in this state of, or illness traced to, milk from cows fed on brewery refuse. The investigation in Massachusetts has been quite extensive in this direction. Indeed, it seems to me that it is not wholly a question of feed as to what the quality of the milk is. Dr. Abbott, secretary of the Massachusetts Board of Health, has cited instances in which cattle were fed on the poorest kind of waste and slops of the least nutritious quality imaginable, and at the same time the milk passed the requirements of the law. So it does not seem to be a question wholly of food. It is a question of breed in a great many instances, a

question of the quality and characteristics of the herd, as to whether it comes up to the standard required by law. I suppose there are other factors of quality which are not always reached by chemical analysis.

Dr. HILL.—Every physician understands that our foods have a vast deal to do with the matter of health both of children and adults. In the counties of Rockingham and Strafford brewery grains are used quite extensively among the farmers and milk-dealers. We have not had the opportunity, perhaps. At any rate, we have not made very careful observations in regard to it, and I am not aware that any of my brethren in that section are able to say what the effects of brewery grains are. Some persons claim that it is very injurious, and others, especially the farmers, claim that it is not hurtful at all. It seems to me that it is a subject of considerable importance, and should be investigated.

Dr. BLAISDELL.—A German scientist says that the direct cause of intestinal diseases and skin diseases in his city have been traced directly to milk from cows fed on brewery grain. I cannot agree with the statement of Dr. Gross that the majority of children are better off if fed on artificial milk. Under ordinary circumstances I feel better about a child if it is nursing. I have had my share of deaths from cholera infantum, and I have yet to have my first case of cholera infantum when the child nursed at the breast.

Dr. STACKPOLE.—I believe that milk is Nature's food for the child. I believe that God intended it should be, As the gentleman who read the paper said, God made woman, and He made her with the breast; He made her to give milk to nurse the child. I do not believe that our mothers are infected with syphilis to any great extent in New Hampshire. If they are, the fact does not come under my observation. I was brought up in a farming district where the food was largely milk, and they brought up large families. They ate bread and milk, pudding and milk, and so on. And now to my patients I give milk. I am not talking about impure milk that has been carried all over the city, or put into cars and trundled to Boston. It was the bad milk that you gentlemen intended to say was hurtful to children; and it would be hurtful to anybody. With my patients, why if milk is agree-

able to them, if milk is suited to their stomachs, I keep them upon milk. If a patient has a skin disease, I put him upon pure milk; I keep him upon pure milk, or bread and milk—not a great deal of bread. And I would rather have it to cure many skin diseases than to have all the medicine you have got in your shops in New Hampshire. With patients afflicted with any disease, I do n't care what it is, I can make better success with pure milk, if it is agreeable to the patient, if it is agreeable to his appetite and his desire, than I can by giving much medicine; for I do n't believe much in medicine. If I have the opportunity of reading my paper you will find out so. A man who lives upon bread and milk can go into the mowing-field, or go to digging ditches, and he can stand the work as well as the one who lives on meats largely, and I think better. I was brought up on a farm. While in Andover, Mass., I went into the mowing-field. We did not have mowing-machines then; we had to use the scythe and the rake. I lived in what we call the Common. I ate bread and milk and rice and milk. I got the largest pay; the man gave me what I was worth; he gave me larger pay than any other man in the field. I was perfectly healthy and well, and I could pitch the hay on and off, and I had to pitch it all off on that large farm. I believe that pure milk is Nature's diet. It is *pure* milk that I am talking about; and I believe it is the best food that man can have, and it is Nature's food for the child. As to impure milk, diseased women, and those that are sick, nursing their children, that I am not arguing. Our women generally in New Hampshire, so far as I come in contact with them, are healthy and well, and nurse their children as a general thing; and I do not believe in this artificial feeding. I do n't believe it will begin to compare with Nature's food. Man never invented anything that was equal to Nature. I never take a nursing child, that has a healthy mother, from the breast. I only speak for myself. I do not wish to change the opinion of anybody. I speak from my own experience and observation; and I feel that I can justify my opinion by showing innumerable cases. One of the most distinguished men of this society, when I first joined it, was an old man. He told me he had had a trouble about his face, and many doctors said it was malignant; that it would turn out to

be cancerous. He told me that he changed his diet to milk, and it entirely disappeared; and he lived a good many years without any trouble from this disease, which appeared on his face. He thought it was produced by a wrong and unnatural diet.

Dr. ADAMS.—I have been waiting for Dr. Howe or Dr. Wheat to defend Manchester on this milk question. It has been stated that we have in Manchester about one tenth of the population of the state, and about one third of the deaths by cholera infantum; and I do n't know to what that was attributed. The fact is, that it is attributable to our working population, to our cotton operatives, to our large foreign population. That is my experience, and I think the other two doctors from Manchester will bear me out. There seems to be a sort of belief among the French population that nothing can be done for a child less than a year old. I have known many of them to call a physician once, and the physician goes there and sees the child, and they say, We do not expect you to do anything for the child—we do n't expect you can do anything; but we call you just to have you see the child and save talk. We have about fourteen thousand operatives in the city of Manchester, about eight thousand of them women; and among that eight thousand women a large proportion are mothers of infant children just old enough to be taken out of their rooms and cared for by a little child maybe eight or ten years old, who is not large enough to work in the mill, while the mother herself goes into the mill and works. Of course that child cannot be properly cared for, and it is neglected. I counted thirteen children sitting around a little square, right in the hot sun, playing in the dirt. They were all of them babies, and other little children looking after them. Now those children are taken down with cholera infantum, and a physician is called in once, and probably he is told that he need not come again, and the child dies; and I will venture the assertion that the foreign population of the city of Manchester furnish four fifths of the deaths. Am I putting it too strong?

Dr. WATSON.—I think you are not putting it large enough, from the registration reports.

Dr. ADAMS.—I presume some of you are familiar with the

convention they have had in Germany to discuss the question of infant foods, where the very best men in the world—the teachers of that branch of our profession—all agreed (I think there was not a dissenting voice) that the mother's milk was Nature's food for the child, and that there was nothing that could take the place of it.

Now I wish to say one word with reference to syphilitic mothers and consumptive mothers. I do not believe that syphilis can be transmitted through the milk. I do not think there is a pathologist that teaches it, unless there is some abrasion of the nipple or breast, or ulceration, with which the mouth of the child comes in contact. I do not think there is any danger of syphilis from the milk itself. I do not think consumption can be transmitted through the milk. I think that the consumptive mother that nurses her child carries a terrible burden, and for that reason I very often say to her, You are unable to nurse your child; in the condition you are in you cannot nurse that child with safety to yourself; you should wean the child, and put it on some artificial food. I do not say it because I believe that the child can take consumption.

I want to say, further, concerning our American families in the city of Manchester, that I do not think there is a city in the state of New Hampshire, and I will almost say in the United States, where they run so much to artificial foods as they do there. I believe that, together with the foreign population and the result from the children of the foreign population, accounts for the increased mortality.

This German commission decided that mothers' milk was first, and peptonized cows' milk next. Mothers' milk resembles cows' milk, with the exception of the caseine which coagulates in the cows' milk. Now, partially peptonized cows' milk will very nicely take the place of mothers' milk, and, in fact, I believe it to be the only safe article of food for the child. It is the nearest of anything that can be given, aside from mothers' milk. I have no doubt, in my own mind, but what we get from part of the milk in cities effects of ensilage and brewerage. The effect of these things on cows is something I know nothing about. But I have had delivered to my own house many times milk that was just beginning to turn and had a particle of an

acid taste, and you let it set in a warm place one hour, and it will sour. We get milk there brought from Bedford, Auburn, Hooksett, and surrounding towns, which are as good farming towns as there are in the state. I think Bedford is one of our best. Still, we get milk from there, as I say, that, after it is lugged around the city and churned up, is more or less tainted. This comes, maybe, from the carelessness of the milkmen who handle it, rather than from anything else.

Dr. LATHROP.—The hot months of July and August give us that black picture of diarrhœa and cholera infantum. Heat is favorable to the development of germs, and it is a fact that scalded milk is good for diarrhœa. A certain degree of heat produces germs, but the scalding kills them.

HOW ARE DRUGS MEDICINAL?

BY M. C. LATHROP, DOVER, N. H.

A minute fly, impelled by healthy hunger, has by diligent toil drilled a shaft through resisting surface to undercurrents of vitalizing pabulum, and his labor is being rewarded by quickly attained and happy repletion. A spirited horse, abounding in vital energy and well trained quickness, is being aroused to imminent frenzy by these innocent and peaceful operations of the happy and well meaning fly. A man sees valuable property, precious lives perhaps, imperilled by the nervous tempest that is raging in that horse. How these impending perils may be averted is a problem for instant solution.

To us who know, it is obvious that to remove the fly would at once abate the storm, and well for all concerned if he who has the affair in hand comprehends this fact. Suppose, however, that he does not; that either he does not perceive the fly at all, or seeing it, fails to understand its prominence in the passing act: what, then, may he do to avert disaster? He may try the counteracting force of firm hands upon the rein and the quieting power of steadying tones, and we, knowing how soon the fly's meal will end, know also that a few minutes of perseverance in this will probably also end in restored safety, although through a period of danger many times prolonged.

A doctor observing this scene, saw, or thought he saw, in it the analogue and parable of much in his experience with diseases and their treatment. A perfect instrument, with equal readiness, yields discord or harmony, responding truly to the talent of composer and of player. So are many diseases but

the normal responses of a sound organism to abnormal excitations. True to natural endowment, the iris will obey other stimuli than light; voluntary muscle other mandate than volition. And so through the whole gamut of elementary function, the "harp of a thousand strings" yields responses both evil and good, true to its structure and to the character of the agency that plays upon it.

Much the larger part of rational therapeutics rests upon this fact. Treatment is addressed to the affected system, and not to the disease. It consists in attempts to correct by known agents perversions of function that arise from the operation of other agencies, known or unknown, animate or inanimate, transitory or permanent, and by whose duration that of the disease itself is measured. By this method diseases, although confessedly not cured, are favorably modified in their progress, and often so mitigated as to secure an easier, more perfect, and sometimes earlier recovery.

This is familiarly exemplified in toxicology;—where, as in morphinism, we cannot directly attack the poison itself, we do, by antagonizing remedies addressed to the system of the patient, sustain the crippled functions for the time that it requires, by itself, to eliminate or destroy the poison.

Much the larger number of classified diseases are similarly limited in duration by the natural duration of their causes, and in them also our treatment is directed to the person of the afflicted rather than to the disease. If this were true of all diseases, still the art of medicine would be amply justified in its work by what it does for the patient in enabling him successfully to endure what as yet it does not even profess to cure: as the art of navigation still maintains its importance in human regard, notwithstanding its inability for over 1,800 years to repeat the treatment of storms exhibited upon the Galilean sea, but still confesses its self-limitation, and its impotence over their duration or violence, wisely confining itself during their furious ragings to attempts at controlling the conduct of the imperilled boats.

Now concerning the "fly." Until very recent times, except in demonology, very little scientific recognition has it received. Even within the memory of some here present, the *sarcoptes*

scabiei hominis held a very questionable relation scientifically to the disease which it was even then known always to accompany, and of which it now is the universally recognized cause. Trichinosis, although an ancient disease, is as such a modern discovery.

Finally, bacteriology, the latest etiological birth, the most marvellous child of modern science, has revealed to us that but for his parasitic enemies man would be comparatively almost exempt from disease.

The proud lord of creation, who by superior intelligence began his domination by the conquest of the more powerful beasts of the field, now for the first time has knowledge of Lilliputian enemies, to which, through infinite suffering and danger, his body from time immemorial has been the occasional habitat, the undisputed homestead and property. He now perceives himself, Gulliver like, to be the victim of the numerically infinite infinitesimal.

We now know that we are often sick because and for the sake of the thrift and reproduction of the lowest forms of vegetable life; that in much the larger number of instances of discordant reaction of the system which are called diseases there is something extraneous, either animate or inanimate, a something to the presence of which the disease is due, by which its characters are determined, and upon whose extermination the disease will end in immediate health or convalescence, provided the structural integrity of the system has suffered no permanent impairment. In all of these the destruction or elimination of an enemy foreign to the system is necessary to effect the cure of a disease.

In some instances, as in scabies, we know the enemy and how to destroy him. In others, as trichinosis, phthisis, etc., we recognize our Achilles, but know not as yet his vulnerable part. In others still, as the venereals, intermittents, &c., we know how to destroy or circumvent an enemy as yet not well known. Many of the remedies thus used, the so-called alteratives, possess the paradoxical character of being remedial in direct proportion to their physiological noxiousness, which would seem very much in place in mere parasiticides.

Of these, under the name of catalytics, Dr. Headland, in

1852, said,—"The action of remedies of this division, which are the surest and most potent of all those that are employed in the treatment of disease, is involved in a greater degree of doubt and obscurity than that of any other class. Though there may be in some cases a certain dim explanation which we may catch hold of, and strive to fix or to render definite, yet in many instances there is not even so much as this. How can we, for example, by any of the common terms which are made use of to designate the actions of mercury, of arsenic, and of iodine, express the peculiarity of their influence over syphilis, lepra, and scrofula respectively? Does it not seem better to confess our ignorance, and to say that all we know for certain is that these remedies have the power of antagonizing certain diseases?"

The above quotation sounds as though spoken of parasiticides before the dawn of the general parasitic idea of to-day. The writer thirty-six years ago was evidently ripe for the "germ" theory of disease.

A medical friend, who generally refrained from physical examinations in suspicious pulmonary affections, gave as a reason that he thought it unwise voluntarily to seek the ability to make a hopeless diagnosis, especially as accuracy of diagnosis could not affect the indications.

Although not sure to come, may we not reasonably hope, from modern methods of study and the improvement that is in constant progress therein, for such advance in antidotal medicine that diagnosis shall eventually rule treatment, and the present ratio between mitigating and curative indications be reversed?

MEDICINE *v.* NATURE.

BY PAUL A. STACKPOLE, M. D., DOVER, N. H.

Gentlemen: In presenting my subject to you to-day, I shall treat it in a sort of desultory manner, throwing together a few facts, as we think, and personal opinions. Please do not understand that my subject implies that we are opposed to medication in all cases in the treatment of disease, for we favor early, active, and judicious means to be employed when needed to assist Nature in her recuperative process. A correct diagnosis is very important,—the basis of proper treatment. Without a true knowledge of the cause of the trouble, active medicines are apt to do injury rather than good. Many cases require no treatment, or only simple home remedies. We think that medicines are necessary in removing obstructions that interfere with Nature in her efforts toward recovery,—to aid her. It is a too lavish use of medicine that we disapprove of,—given without proper investigation, and therefore without any real object in view.

I will illustrate some of my ideas, which experience and observation have taught me, in the treatment of pneumonia of the present day. It is quite a fatal disease, especially in New England, and, as we think, largely owing to its treatment. In all diseases there are functional derangements and poisonous accumulations in the system. Disease is obstruction to physiological action by unnatural secretions which act as poisons. When one organ is diseased, the other organs in a measure cease to act naturally. In pneumonia, if the bowels, liver, kidneys, and skin cease to perform their normal functions,

much obstruction, as a natural consequence, will occur. With no eliminating organ in full action but the lungs, they, being overworked in trying to do the work of the other organs, become highly inflamed. Our practice is to relieve the lungs by getting the other organs to the proper performance of their work, and thus help the lungs in their work of elimination. It is very important that the bowels should be attended to, for they are the outlet of much that would poison the blood, oppress the lungs and brain, and prove fatal to the patient. So long as the other organs are neglected and all the treatment directed to the lungs, pneumonia will prove a very fatal disease. Get the system in a normal condition generally, as far as possible, and the inflamed lungs will obtain rest and have a tendency to get well, although there are some cases, under certain circumstances, that we cannot relieve and cure.

The same principle will hold good in the treatment of many other diseases. A person of healthy organization need not die, as a general rule, if properly treated. It is not science alone, but experience and good judgment, that is needed to treat disease successfully. It is the abuse, and not the proper use, of medicines that we condemn. The true and thoroughly educated physician, with experience, investigates his cases, having always in mind his patient, his mode of life, his predisposition to disease, his mental condition, and everything making up his power of resisting disease, and through such knowledge may be able to make a correct diagnosis and give judicious treatment. Let us not forget that Nature is the curative agent, and that we should study her processes and learn wisdom from her.

We are fully aware of the great advance that has been made since the practice of early time. Many theories have been advanced, but only those that have stood the test of time and have passed through the winnowing sieve of experience should be adopted. The world is full of books, but a not very large volume would contain all the well proved facts. We should be slow in accepting new theories, but we should be equally careful not hastily to condemn every innovation on the old and accepted of the past, but honestly to seek after truth, and fearlessly to defend it. Whether new or old, they must stand on their merits, and those who stand in the presence of disease and

death should be considered competent judges. New theories and new remedies have great attractions to many neophytes in the profession, and often to the injury of their patients. This is what we oppose, and believe to be a great error in the profession. Let us consult Nature and assist her, and only use medicine as she indicates. Therefore let us adopt new theories and new medicines only after the furnace of time has burnt up the dross and left the gold pure. The time has come for the profession to look more to their physiology. It is very important to have a thorough knowledge of this branch, as it is the study of Nature.

We believe that many affections, such as rheumatism, Bright's disease, skin diseases, and the hydra called dyspepsia, are due to what and how we eat and drink. Far be it from us to decry the judicious use of remedies. These must be employed, but we must appreciate and know how to regulate diet and assist the digestive processes by appropriate measures, or our treatment will be in vain. Sir William Roberts says that a natural and proper diet is a very simple and monotonous one, like that of cows and horses; but the concoctions of the progressive cook have changed the process to one extremely harassing, although the digestion of simple food is one of the simplest of animal functions. We have come to a full realization of the fact that in the treatment of disease, especially skin diseases of an inflammatory character, diet is of far more importance than drugs. Inasmuch as imperfect digestion, improper food, or both, constitute the *fons et origo* of so many cases of cutaneous diseases, therefore it is evident that a simplification of diet, to assist Nature, will strike directly at the roots of the malady; but a neglect of this, as a rule, will render the most approved medical treatment of little or no value. In a condition of absolute health, we believe in a generous diet, when guided by reason and in accord with the laws of Nature. Some physicians advise their patients to eat freely in order to build up the system,—which is injudicious and often harmful advice. One might as well advise a patient with weak and diseased joints to freely exercise in order to get strong. In all cases we should exercise good judgment and common-sense. In my judgment, over-eating as well as over-drinking is injurious. A man of seden-

tary habits, that eats three hearty meals day after day, generally overtaxes his digestive powers, and sooner or later will suffer in mind as well as in body. A careful observance of the laws of hygeia is better than medicine. We should ever keep in view that Nature is the great restorer, and medicines only aid in her recuperative processes.

I fear that the great fault of many is a want of knowledge of their profession, for it is impossible to practise medicine with success and skill unless our knowledge of all its branches is accurate. No loose, superficial view will suffice, if we consider ourselves worthy, and wish to uphold and honor the profession. There is no study within the reach of the faculties of man more justly entitled to his respect, more instructive to his understanding, or more beneficial to the finer qualities of his heart, than the intelligent examination of that wonderful organization whereby a machine of innumerable springs, self-conservative and self-repairing, is kept in order for nearly a hundred years. *Vivimus ut discamus*—we live to learn; especially in our profession there is no rest, but a steady, continuous effort. The study of Nature, in all her mysterious, wonderful, and salutary operations, is no small matter. The science of medicine is really an assemblage of facts, ascertained by observation and a correct study of Nature. No true diagnosis can be made without accurate knowledge of anatomy, physiology, and pathology. A correct diagnosis is indispensable to the intelligent physician in his making up of every prescription. I repeat, that in order to make a correct diagnosis, we must know the structure of the organism, its mode of development, its manner of support, and their salutary and morbific influences.

If the physician really understands his profession thoroughly, has power of thought and discrimination and experience, in time he may acquire in his investigations what may almost seem an intuition. If one has brain power combined with knowledge and acute perceptive faculties, his practised eye, as we say, "looks through a man," and he hardly knows how, but he at once arrives at the right conclusion. With the older physicians, who were close observers, it was practice, not culture. I will barely allude to an important defect in the educa-

tion of our medical brethren of the present day. Too many choose the profession of medicine who have but little preliminary education, and therefore make but poor representatives of a learned and scientific profession. Every one who desires to study medicine should first pass a thorough examination as to his fitness and previous preparation for duly appreciating and understanding the technicalities of the work. A good primary general education is essential. In Europe, as a rule, the medical men are far better educated than here in America. Their course of study is ten years—six in college (classical) and four in the study of medicine. Then they are examined by a state board of examiners before being allowed to practise. If the course of study in this country were the same as in Europe, or similar, our profession would rank higher, occupy a more honorable and dignified position before the world, and not be disgraced by ignorant and pretentious neophytes.

We should thoroughly investigate every case, whether slight or grave, and prescribe only after such investigation. It is lamentable that many physicians never cultivate any habit of study, and who read, if at all, only in a desultory manner. In the practice of medicine, it requires a large amount of reading to keep one thoroughly advised as to all its improvements and discoveries. The scientific and skilful physician looks sharply at everything that comes under his inspection, carefully locates the primary affection, and makes out clearly all the manifestations and complications that attend it. Those physicians who are too indolent or too ignorant to investigate their cases are unworthy members of a noble profession. They usually resort to all sorts of trickery and intrigue to deceive the ignorant public, such as the popular doctrine of humors, gastric fevers, &c., or make the liver the pack-horse of all human infirmities. "By their fruits ye shall know them."

The late Dr. Austin Flint, in a lecture, calls such as who never tire in the use of medicines "Pharmacomaniacal practitioners." He says one may know his predisposition by a glance at the array of vials, cups, and glasses at the bedside of the patient. We do not deny that medicines are often useful in removing obstructions which stand in the way of recovery,—to aid Nature. The great fault is a too lavish use of them. All

of us are apt to have too much faith in drugs and too little in Nature. We have often been admonished by charlatans of our defects in the principles of our practice and in the treatment of disease.

I will, in this connection, refer to some of the sects, denominated doctors, whom we call empirics. The Homœopaths,—I mean the followers of Hahnemann,—had a fair share of recoveries of their patients, although no sane man would believe that their infinitesimal doses had any effect upon disease. Their success was owing to their devotion to the goddess Hygeia, leaving the *Vis Medicatrix Naturæ* to act undisturbed. The Thompsonians endeavored to remove disease by acting on the skin directly, imitating Nature in many of her processes, and often with much success. The Hydropaths operated with the simple agent of water, but often with an ingenuity and good effect that were astonishing. Water, judiciously used, is one of our best remedies, and has many curative properties: it is Nature's remedy. The Faith or Mind Cure, so called, seems quite a mystery, but there is no question as to its reality and virtue, for in many cases we see good results. Inspiration of faith in a patient often acts like a charm in the way of cure.

I will speak more fully of the Faith doctrine, as it relates somewhat to my subject. There is something in this doctrine beyond our comprehension (and thus we might say about a great many things), but it shows the influence of the mind over the body. All persons may not be influenced in the same degree, but every one is more or less susceptible to it. There are natures in whom imagination is so dominant that they can make themselves ill, or well, as they decide to be. Insomnia is often remedied with sweetened water, flavored. All that is necessary is to arouse and get the confidence of the patient. There are some things that are of a grave character, so deemed, that they make too deep impression on the brain, or, as we say, on the mind, and the consequence is insanity. Expectation of a consequence, or fear of it, is a potent cause to produce it, for faith will both induce and remove disease. I have no doubt but that the application of the king's hand did much toward curing scrofula, through faith, by the expectant state of the patient's

mind. Warts are often removed by doing some foolish thing through faith. These things we cannot explain, but they show the wonderful power of the mind over the body. They illustrate the importance of getting the mind right, and inspiring faith in our patient.

I believe a hundred-fold more of doctoring is going on—that is, dosing—than is necessary. I think too many complicated medicines are used, especially those that tend to bring down the vital powers. From what I know of the medical profession as a whole, and the practice at the present day, I would rather trust to Nature to cure than to have many doctors interfere with her operations by haphazard dosing. As a rule, the longer a doctor practises the less medicine he gives, and the less faith he has in it and the more in Nature. In the treatment of disease we should watch Nature's most extraordinary efforts to relieve herself, and cautiously to aid her all we can.

I notice that death follows on the track of some doctors (I might say many) very closely, owing, as I think, to poor judgment and bad treatment. I am not surprised that Dr. O. W. Holmes should have said, in substance, that "Medicine kills more than it cures." The various sects mentioned, if they do practise charlatanry, are in their practice in a measure harmless, for they rarely interfere with the laws of Nature. The profession, given to over-dosing without stint, is slow to adopt the few grains of truth that these systems of charlatanry contain. It is education and experience that we need—a reform both in our profession and in the medical schools. In consequence of ignorance and want of skill, we have much quackery practised in the profession. We have too many rival schools offering inducements to the uneducated, as well as to the educated, by low fees and short terms of study, to enter the profession and become doctors. The half educated artisan, ambitious to be ranked among professional men, and meeting with no obstacle in the way of a preliminary education, throws aside his implements of trade and walks into some medical school, to emerge therefrom, after two short courses of lectures, a full fledged M. D., licensed to go forth as the accredited representative of a so-called learned profession.

Nearly all institutions that have power to grant diplomas

I will quote what the late Dr. Austin Flint, in a lecture upon the natural appetite and desires in cases of this kind, says: "It is a sound maxim in medicine that the therapeutical indications derived from Science and from Nature, as a rule, should harmonize. If they are in conflict, the scientific indications are open to suspicion." He adds another maxim, and says that "the true principles of therapeutics are in accordance with the dictates of Nature and common-sense. If there be antagonism, it should be considered reasonable to suppose that the liability of error is in the direction of the scientific deduction, for Nature is true."

These maxims are applicable to the dietetic treatment of disease. Nature's indications as regards diet relate to appetite and the sense of taste. That appetite and taste were intended to govern the choice and quantity of aliment in health no one can doubt, especially if it be added that the indications derived therefrom are to be regulated to a certain extent by reason and experience. But it is a popular error that these natural indications are necessarily morbid in case of disease, and that, instead of being recognized as constituting a governing principle, they are to be opposed. This popular error prevails to a certain extent in the medical profession.

How often, perhaps I should say how common, is it that patients with different diseases are denied food when Nature indicates the need of it by the sense of hunger. How common, when food is allowed for patients, to be denied the articles of food which they desire, and made to take those which they dislike. I look upon this disregard of Nature's indication in the same light as the exclusion of fresh air from the sick-room, against which Sydenham was the first to rebel, and upon those restrictions in the use of water, internally and externally, which even now have not become obsolete. The dietetic regulations in cases of disease need reform to-day fully as much as reform was needed in regard to air and water. It is evidence that science is astray whenever it is found opposing instead of co-operating with the indications of Nature.

Lest some might doubt my opinion as regards the natural appetite, I have quoted quite freely Dr. Flint on the subject, from one of his lectures: "The attempt to control disease by

powerful drugs, irrespective of its natural cause, constantly afflicts the possessor of this desire with the disappointments and vexations of failure. The laws which govern pathological processes are regular and orderly, as other natural laws."

I said in the beginning of my paper that I should treat my subject in a desultory manner, but I trust that what I have said will not be construed to cast reflections upon the medical profession, or our schools, only in the light of reform, as it must, seemingly to me, be admitted that reform is needed both in our medical colleges and in our profession. We have eminent medical men, and some fine schools that compare favorably with those of Europe; but the fact remains that we fall far behind them in the system of study pursued. In Europe the student knows that unless he possess educational training to build upon, he cannot hope to master the complex and difficult work before him. It is not so in this country.

I will barely refer to another matter which has somewhat occupied my attention. It must be acknowledged that therapeutical skill has been greatly hampered by the complexity of the materials. The subject should be divested of its superfluities. Our U. S. Pharmacopeia, our only official authority, could be greatly abridged, with advantage as I think. For instance, the different preparations of iron number about forty, and mercury nearly the same, rhubarb some sixteen; and so we might go on through a long list. I would ask, What need of all this complexity, when one fourth or less could perform the duty of all of them quite as well, and perhaps better? Then it is no small matter to master the pharmaceutical details of all these compounds, as it requires too much time and would be a useless task. It is an old maxim, and a true one, that "An ounce of prevention is better than a pound of cure." Gentlemen, let us consider that the most glorious triumph of our profession should be to prevent, not alone to cure, disease, and that our first duty is to use our earnest endeavors to ward off those very diseases whose cure would have enriched us. It will be well for us to study Nature, and see how she works and cures her diseases, and be sure in our treatment not to interfere with her curative process and preserving power,—*Vis conservatrix Naturæ*. In all diseases Nature's tendency is to cure.

Gentlemen, in closing I will quote the opinion of Dr. John Bell, the distinguished anatomist, physiologist, and pathologist, and also that of Dr. John Hunter, the father of British surgery, equally celebrated with Dr. Bell, both of whom say that a thorough knowledge of these branches is a sure foundation of a scientific and successful physician, and that therapeutics should only be studied that we may know how to aid Nature in our treatment of disease.

DISCUSSION.

Dr. Hill.—The president asks me to break the ice this morning to let the rest of you in on Dr. Stackpole's paper. Dr. Stackpole does not ask you or me to agree with him in all the positions he takes. The education of young men is a vastly important matter, and I think there has been a great failure in that direction; and if this Society can do anything to aid in procuring a better education for physicians in New Hampshire, it is in duty bound to do it. We all know that some people have gone through and received a diploma from medical colleges of New England—perhaps there need not be any exception made—who were not thoroughly well equipped for the practice of medicine; and there should be something done, if possible, and I think there can be, among physicians. We should not encourage young men to come into our offices to read medicine unless they have a good preparatory education. Then we should set our faces against the graduation of men to enter the practice of medicine who are not competent and well prepared for that practice.

In regard to medicines, the doctor says, what is true, that Nature makes an effort to cure us when we are sick; and he goes for giving medicine at the right time and in right quantities. I believe that we should act in accordance with the efforts of Nature in the treatment of every disease. The doctor intimates that medicine sometimes does harm, and alludes to pneumonia. It almost makes us tremble nowadays to think of pneumonia. There has been a wonderful fatality all over the country from that disease. The doctor intimates that the cause is bad practice. It has occurred to me that it is want of practice, want of proper means. There has been a holding back, a hesitating and

waiting, to see what Nature would do for cases of that sort. It seems to me there has been a much greater fatality in cases of pneumonia than formerly.

Dr. CHILDS.—I was very much interested in the paper under discussion. There are some questions brought up that I think are of vast importance to us as physicians. They ought to be investigated, and written about and talked about, even if we do not arrive at practical conclusions the first time. The stirring up of the waters does in the end bring knowledge, and the more the better.

In regard to this matter of the education of young men: I think there should be a thorough paper written by somebody, by and by, on that very subject, such a one as will voice the feeling of this Society; and this Society has no little influence in this state, first and last, and in all directions. I am sorry that I did not have the full college course before my medical course. I certainly did have a pretty thorough medical course, and the only thing I regret is that I did not have the preliminary full college course. I believe that a man may know something if he has not been through college, but he is a bigger, broader, abler man if he has had a college course, other things being equal. I believe that a knowledge of Latin and Greek is just as necessary to the physician's full strength as is a knowledge of the English language.

In regard to the use of medicine, I have always had just about the doctor's idea, and have always advocated it, as you must remember if you recall some of the papers I have read. Now, I do not mean by that to do away with medicine in our practice; but I do believe this, that there is a certain amount of common-sense to be used, each man for himself,—and no man can dictate to any one of us what is the best in every case; but in order to be safe men, we must be self-reliant, thoughtful, and studious.

Dr. ROBERTS.—You say that Nature should be consulted in the use of medicines. I think it frequently is insulted.

Dr. WHEELER.—I have in my imperfect way assisted just forty medical students, but when they come to me I advise them to go where they will receive instruction, and recite daily, as they do in the college course. Within three years a

young man has been admitted to this Society. I inquired of a farmer boy who had been his associate at school, who said he himself was as good a scholar at the common school as this young man was, and I could not find that he had had any further education at all, except that after about ten years' work in a mechanical establishment he left it, and in one year he had obtained the degree of M. D. in some way. I think we ought to investigate the qualifications of applicants for admission to this Society more thoroughly.

Dr. STACKPOLE.—I am very much obliged to you, gentlemen, but you did not drive into me as much as I wanted. I feel as Dr. Childs does in regard to the matter of education. I had a three years course of study of Latin and Greek, without any English connected with it, and I regret that I did not go through the full collegiate course.

RAMBLES IN THE HIGHWAYS AND BY-WAYS OF A DOCTOR'S LIFE.

AN ADDRESS DELIVERED BEFORE THE GRADUATING CLASS AT THE NINETY-SECOND ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF DARTMOUTH COLLEGE, NOVEMBER 22, 1887.

BY W. S. LEONARD, M. D., OF HINSDALE.

In this ancient college town, in the old church whose walls and galleries are full of the eloquence of many generations, we are assembled this evening to bestow the final honors upon another class of studious, earnest, thoughtful men, who "have finished the course" and "kept the faith," and now await only the decree of the venerated president of Dartmouth college, which proclaims them doctors in medicine. Wearied with the prolonged studies and vigils of a final lecture-term, these gentlemen have earned the right to a breathing-space and a holiday; and they would hardly consider it in good taste for your delegate to select an abstruse theme, or launch upon them some weighty pathological disquisition. This would be ill in keeping with the spirit of the hour, and, besides, your delegates, having been long in practice, would rather be taught than try to teach men fresh from the schools. The immense advance of medical and scientific knowledge in the last two decades renders us all rather learners of you than teachers in the intricacies of modern medicine as taught to-day in our best medical schools and colleges. And so it has occurred to me that I would please my audience best by inviting them to take with me a *Ramble in the Highways and Byways of a Doctor's Life*, without map, chart, compass, or fixed destination,—just as we go out some

times into the summer fields, or climb the mountain-sides, wandering leisurely hither and yon, gathering here a flower and there a rare plant or mineral, listening to the songs of the birds, soothed by the murmur of the brook, watching the varied skies, the sunlight, the shadows, the landscape with its ever-varying panorama, avoiding the bogs and pitfalls, the slippery and dangerous places,—and retaining afterwards only the recollection that the day was delightful; that we were not wearied, but rather refreshed, by our outing, and better able to buckle on again the armor of toil and effort, because of our aimless but not unprofitable holiday.

Let us begin our Rambles with the proposition that personal attention to the sick and the dispensing of drugs are not the whole, nor even the major, part of a doctor's life-work. The young physician realizes this, as, fresh from the schools, he pitches his tent, often at random, and begins his daily duties as the servant and almoner of the sick and suffering. He soon catches glimpses of a broad and untried country outside the realm of the lecture-room and the text-book, which requires tact, keen observation, and acute reasoning powers to explore satisfactorily, gleaning, every day, every week, every year, some fragment of worldly wisdom that shall help in the professional battle of life. A failure to attach due importance to these common-sense essentials will well-nigh result in failure to the best-read student of medicine,—and so it happens that it is not always the most promising students who become the best practitioners; and this is a source of consolation to those of us who were outstripped in the race for honors years ago. A very dull student often rises to the plane of a distinguished consulting physician and surgeon. "The stone which the builders rejected, the same has become the head of the corner." Mind, I am not decrying studious habits or high rank: these are to be sought after and cultivated: but are there not outlying helps, adventitious aids, to success in medicine as in other professions, not treated of in the text-books, scarcely alluded to in the lecture-room? I propose to mention some of these in the rambling way that becometh a country practitioner who has lived less among books than he ought, but has gone about the daily rounds of practice with his eyes and ears open.

What is the true worth of experience? It depends upon the effect it has upon a man. If he can learn from it, becoming wiser, better, broader in his outlook upon the world, more catholic, charitable, tolerant,—well and good; but if by the means he gets into ruts, becomes a machine, a tread-mill, an animated fossil, what does it profit him if he has grown gray in the service? In the "Professor's Story," when Bernard Langdon interrogates Dr. Kittredge about his library, the good doctor has to admit that although he had some books he had not read them as he should; but he adds,—"When a doctor that's once started right, lives among sick folks for five and thirty years as I've done, if he has n't got a library of five and thirty volumes bound up in his head at the end of that time, he'd better stop driving and sell his horse and sulky. . . . I know the families that have a way of living through everything, and I know the other set that have the trick of dying without any kind of reason for it. I know the years when the fevers and dysenteries are in earnest, and when they're only making believe. I know the folks that think they're dying as soon as they're sick, and the folks that never find out they're sick till they're dead. There are things I never learned, because they came in after my day, and I am glad to send my patients to those that do know them, when I am at fault; but I know these people about here—fathers and mothers, and children and grandchildren, so as all the science in the world can't know them without it takes time about it, and sees them grow up and grow old, and how the wear and tear of life comes to them. You can't tell a horse by driving him once, nor a patient by talking half an hour with him." Thus are chronicled some of the fruits of the experience of a shrewd, far-sighted country doctor—vital, practical, wrought out line by line from the great book of nature. This is the kind of experience that tells, if we will but profit by its gradual, almost imperceptible, methods of instruction.

It should be the resolve of each physician, at the beginning of his career, *to do everything well.* Our lives are made up of trifles, unimportant things in themselves, but they go to make up the sum-total of existence. The late Dr. Dixi Crosby used to say that one of the greatest compliments he ever received

in his life was bestowed upon him by a foreign professor, who, on one occasion, visited his lecture-room and operating amphitheatre, watched him critically as he performed several operations, and at the close simply said to him,—"Dr. Crosby, you do little things very well." Now there is a great principle of political economy underlying the ancient maxim, "Take care of the pennies, and the pounds will take care of themselves:"—so in medical economy, if a physician is careful, painstaking in little things, will not this same habit follow and cling to him in the performance of the weightier duties and responsibilities of his calling? Every patient who comes into the consulting-room, however trifling the ailment or disability, has a feeling that it is really of the first importance, and if the physician seems indifferent or careless, and dismisses the case with a *placebo*—very likely an opiate—and forgets the whole circumstance in an hour, you may be sure that the patient won't forget it by any means; but, on the other hand, offended at your lack of interest, and failing to get relief for the real or fancied indisposition, he will hie himself off to somebody else, very likely some charlatan or imposter, who will make up in interest and high-sounding words what is lacking in skill;—and the doctor often loses a patient by his neglect in paying attention to little things. I verily believe that the medical quacks and imposters reap a rich harvest every year in treating catarrh and a thousand other chronic ailments, simply because physicians will not pay sufficient attention to the minor "ills that flesh is heir to," but pass them by as beneath their notice and careful attention.

Another element of success in the doctor's calling is *promptness*—promptness in responding to the calls of the sick and suffering. Never make unnecessary delays. The moment a messenger has been dispatched for the doctor, from that time out till he comes the patient is expecting him momentarily, and wondering at the delay. Of course there are unavoidable hindrances: the physician may be detained by critical cases elsewhere;—but make it a rule to go as soon as possible, for, whether the disease be real or fancied, it makes little difference. Your patient will be better satisfied, his symptoms will yield more readily to treatment, if you put in an appearance promptly and show an interest in the case, however trifling it may seem to

the practised eye of the physician. But my brethren of the profession will tell me that not infrequently the doctor is summoned in haste when there is no earthly necessity for it, and that it is hard to distinguish between the really urgent appeals for aid and the make-believes—the cases that "will keep" till the physician in his daily round can reach them; and some very crusty doctors get to the point that they never hurry, for they aver that if the patient be dying, they can be of no service, and in any other event an hour or two will make no difference.

An old practitioner, with whom I was associated many years, used to relate an amusing experience of his own, which illustrates the point. One fearfully stormy day in midwinter, just as he was sitting down to dinner, he received a summons to go to a distant part of the town to visit the only child of a farmer, who was reported in convulsions, and at the point of death. The messenger was imperative: the doctor must go at once. The snow was piled in great drifts, and the roads were impassable for a sleigh; so the doctor saddled his faithful horse, and set out upon his journey on horseback. When he reached a big snow-bank he would slide off behind, grasp his steed by the tail, and the patient animal would drag him through, and wait for him to remount on the other side. After two hours of plunging and wallowing in the snow, the jaded horse and exhausted rider reached the house. The anxious father met the doctor at the door, and the latter, fearing he was too late, hastened in, to find this only child—the idol and pet of the household—not dead, but sitting up at the dinner-table in a high-chair, *eating bread and molasses.* Such instances as this dampen a doctor's professional ardor and promptitude. If asked how we shall distinguish between the urgent and the imaginary needs of our patients, I can only point you to the saying of Dr. Kittredge, already quoted, which finds its counterpart in the practice of every doctor of experience. We all in time come to "know [by heart] the folks that think they 're dying as soon as they 're sick, and the folks that never find out they 're sick till they 're dead;" and we must govern ourselves accordingly.

In the copy-books of our boyish days we were many times confronted with this aphorism: "A man's manners often shape his fortune." Manners and morals mean the same thing in the

chamber of the sick, as in the drawing-room or boudoir. The doctor should always go into the sick-room with a cheerful face, nor be chary of the "hearty laugh that doeth good like a medicine." Patients get tangled up, discouraged, get "the blues;" and it is one of the offices of the doctor to set them right, smooth over the rough places, "knit up the ravelled sleeve of care," and quiet their apprehensions and forebodings. That practitioner will succeed the best, be his skill great or less, who knows how to touch the springs that inspire hope, confidence, cheerfulness, and trust, making gloom and despondency fly out of the window. We want sunshine in the sick-room. Patients do badly in a dark, gloomy apartment; and so the surroundings, the nurses and attendants, and, most of all, the doctor, should reflect only sunshine and good cheer. When we hear a patient say, "I always feel better after Dr. B. has called, even though he leaves me no medicine," we need no further proof that that physician understands his business; that he is something more than a dropper of tinctures and a dispenser of drugs; that he knows how to "minister to a mind diseased," and to bind up bruised and wounded hearts. "It is not everybody," says Dr. Holmes, "that enters into the soul of Mozart's or Beethoven's harmonies; and there are vital symphonies in B flat, and other low, sad keys, which a doctor may know as little about as a hurdy-gurdy player of the essence of those divine melodies." A rough and forbidding manner takes with a certain class of people, and physicians of very small mental calibre often achieve quite a reputation by their reticence, brusqueness, and positive rudeness. Few people, however, are so benighted and ignorant as not to detect the true ring of the genuine coin that stamps the gentleman; and it pays to be equally courteous, whether treating Bridget O'Flaherty in a shanty, or prescribing for Mrs. Van Dusenbury on Commonwealth avenue. Never seem in a hurry; always lay aside your over-coat if you are intending to remain in the sick-room only five minutes. It gives the invalid the impression that you have come to do something specially for him; and sick people, of all people in the world, are the most exacting that their ills should be the object of serious attention and study. Undue familiarity breeds contempt. Patrons will treat a physician very much as

he treats them. If he be courteous and dignified, they will respect him the more for it, and model their behavior after his own. The low word, the vulgar jest, should be put afar from the doctor's lips. He can be affable and agreeable without violating the proprieties and amenities of life, be the genial companion as well as the trusted friend and counsellor, without compromising the dignity that doth hedge in the doctor on occasion.

One thing more. The physician should leave the sick-room with sealed lips. He should preserve most religiously the professional secrets of his patients. The late Dr. Peaslee used to relate to his classes the history of an extremely interesting and delicate case, for which he was consulted in a distant town; "and," added the professor, with that indescribable twinkle in his eye which we remember so well, "the patient did n't dare to consult the village doctor *for fear that he would tell his wife.*" The instances are not wanting where a physician's practice has been seriously crippled by an unfortunate propensity to talk about his cases in the presence of his family or intimates, never dreaming that it would go any further. "A doctor's patients should put their tongues out, but a doctor's wife must keep her tongue in." People go to their doctor as the Roman Catholic goes to the confessional, and they ought to feel as sure that their bodily weaknesses and infirmities will be as scrupulously concealed.

What should be the physician's demeanor in critical cases, where life and death are evenly balanced in the scale? These cases will occur in the practice of every physician, and require nerves of steel, prompt and decisive measures, with no temporizing or faltering. The doctor must be master of the situation. He must carry confidence and courage in his face, and never allow himself to be surprised or disconcerted at any sudden exigency. Patients and attendants are quick to observe the least hesitancy or faltering on the part of the attending physician, and lose faith at once. "O king, live forever!" was the maxim that the late Dr. Dixi Crosby used to quote to his students. In the doctor's horoscope there should be no such word as *fail.* Many a valuable life, given over by relatives and friends, tottering upon the verge of the grave, has been called back to fresh-

ness and beauty by the prompt and energetic treatment and steadfast courage of the family doctor. We should never allow ourselves, however, to make extravagant promises of cure when the case is involved in grave doubt. It is far better to say, "We will do the best that can be done," taking a hopeful view if there are any grounds for encouragement, and leave the result with God. False promises always result disastrously to the reputation of the physician who indulges in them for the sake of the temporary reputation they afford.

We have spoken of the doctor's demeanor in the sick-room, out of it, and in critical and desperate cases: it remains to speak of his attitude towards his professional brethren—the etiquette of the profession. Our intercourse with our medical *confrères* should be frank, friendly, without deceit. Let no petty jealousies, or fear of being supplanted by some more fortunate rival, cause us to forget the courtesies and amenities due our equals or superiors in the profession. We must remember that every man sooner or later finds his level in the scale of humanity. If we attempt to carp at or belittle the methods of treatment of another practitioner, we may be very sure that the blow will recoil upon our own heads, to our great disadvantage and detriment. People do not send for a doctor to be entertained and amused by his diatribes over the lack of skill and ill-advised treatment of a predecessor. What they want to know is, Can you do anything more or better than has been done for the case? Therefore, whether at the bedside of the sick, in the consulting-room, or in the social circle, let all innuendos or disparaging words be put far from your lips. The physician who so deports himself as to be well spoken of by his brothers in the profession you may be sure is a safe man to anchor by, and to rely upon in an emergency.

The world contains what is called out West "a smart sprinkling" of peculiar people; and the doctor meets them all in his daily round far oftener than do any of the other learned professions, and he sees them not as they *seem*, but as they *are*. When the minister calls, he sees families at their best, with company manners and in holiday dress; and the good man is charmed, and he goes home and says to his wife, "I have just made such a delightful pastoral visit. How the Christian

graces do shine out in that family! I can see, too, the beneficent fruits of Sabbath-school training in the children." The doctor, summoned hurriedly, does n't always see them just that way; but don't you forget that he views them in their normal state. *In vino veritas*, sings the Latin poet; *in morbo veritas*, sighs the disciple of Æsculapius. Sickness brings out the "true inwardness" of the individual. Pain and suffering are great levellers, and the people are rare who know how to be sick gracefully, for it is a great art. In the moonlight of a summer evening we see Gladys smiling through the lattice upon her gay cavalier, and, in truth, it is an enticing picture; and the doctor, if he be a young man and impressible, in his heart pays involuntary homage to this divine creature. But he is disenchanted when called afterwards to visit Gladys in the morning—Gladys *en déshabillé*, Gladys with her hair in curl-papers, Gladys groaning with a bilious attack; and yet, such classic authority as George W. Curtis assures us that "the best of women sometimes take physic, and scold the cook." It is the fortune of the doctor to have more or less intimate relations with men and women who are accounted by the world at large as charitable, large-hearted, generous, humane, patterns of the domestic virtues; and yet he knows that at home they are churlish and fretful, stingy and niggardly, domestic tyrants;—and so it comes about that the doctor is far more apt than most men to distrust mankind, and womankind too, and, as he grows older, to become cynical, and slow to believe in any virtues until he has applied the crucial test, and has seen how the wear and tear of life affect them.

Then there are the peculiar people; the doctor knows them all, has prescribed for them sometime or other; their names are tucked away in the pigeon-holes of memory—people who are always ailing—professional invalids, who, if questioned respecting their physical condition, can answer with truth that they *enjoy* very poor health. These are the kind of invalids who literally "have suffered much from many physicians, and never were cured"—and never will be. They are very sure to send for the young doctor; they are among his first patients, but they "winter-kill" (as the farmers say) the first season—the more delicate ones even sooner. They bring no credit to

the door of the conscientious, painstaking practitioner, for they are constantly seeking after some new thing.

Then there are the people who do not believe in medicine or in doctors, and decry them upon all occasions, and yet, when they really get sick, they are the very first to summon the doctor in haste, demand of him miracles and impossibilities, and are the most timid, and at the same time the most unreasonable and exacting, of patients. When we hear a man ridiculing the medical profession and repeating threadbare jokes made at the expense of some luckless doctor, we may be sure that some fine day he will clamor for the very aid he talks about so slightingly.

Another class, who only summon the doctor from sheer necessity, are those who have an overweening confidence in the marvellous. They believe that, under certain conditions, they can be cured in the twinkling of an eye by the aid of Spiritualism, by Faith, by Prayer, by Christian Science or Will-power. They despise the old and beaten roads to recovery, and are constantly searching after a "more excellent way," some "royal road," some elixir of life, some chimera, some charlatanism; and the bigger the humbug, the better they are pleased. Usually there is a screw loose or a bolt broken somewhere in the mental machinery of those devotees to empiricism; and it is of no sort of use to attempt to set them right. "Ephraim is joined to his idols: let him alone." The late Professor Peaslee never said a truer thing than this: "It is impossible to reason a man *out* of anything he never was reasoned *into*."

We occasionally, too, meet people whose humanity is so broad, so far-reaching, that they are constantly casting about for means to make the whole world better religiously or medically, but with too wide a vision to see the multiplied instances of sin, destitution, and suffering right at their feet. The benighted condition of the Hottentots, or the sporadic diseases of the Fegee Islanders, employ all their energies, and leave no spare time to devote to their own kith and kin, their near friends and neighbors, who are in urgent need of help and care at home. In the amusing ballad entitled "A Very Busy Woman," the witty satirist paints a pen-and-ink picture of a certain "Miss Sophronia"—a typical specimen of this sort of humanitarians:

I.

"She pronounced in sounding platitude
Her universal gratitude
For men of every latitude
From the tropics to the poles;
She felt a consanguinity,
A sisterly affinity,
A kind of kith-and-kinity
For all these foreign souls.

II.

For Caledonian Highlanders,
For brutal South Sea Islanders,
For wet, and moist, and dry-landers,
For Gentile, Greek, and Jew;
For Finns and for Siberians,
For Arabs and Algerians,
For Terra-del-Fuegians,
She was in a constant stew.

III.

Oh! it worried Miss Sophronia
Lest the men of Patagonia
Should all die with pneumonia,
With the phthisic or the chills;
Yes, indeed, she worried daily
Lest a croup or cold should waylay
Some poor Soudanese or Malay,
Dying for the lack of pills.

IV.

And she toiled on without measure,
And with most unstinted pleasure,
For the good of Central Asia,
And the Pagan people there;
But meantime her little sister
Died of a neglected blister,
But Sophronia hardly missed her,
For she had no time to spare."

There is still another class of people who are peculiar when ooked at from a medical standpoint, and I trust I shall not be ccused of "stretching a point," when I say that educated peo-ple,—people of culture and refinement, adorned with all the graces of the schools, and surrounded by wealth and luxury,—have often the most crude and vague ideas concerning the laws

of health, sanitary regulations and requirements; and though they know a great deal of everything else, are profoundly ignorant of the working of the intricate and delicate machinery which keeps in motion the "house they live in." It is a melancholy fact that quacks and pretenders reap a greater harvest in this field than among the poor and ignorant. Fanciful, picturesque, and illuminated systems of medication, which can only be bought for a great price, have their day in the fashionable world, and pass away only to give place to some new delusion and chimera. It is a curious paradox, that liberal learning and generations of culture should leave many parents so unfit to rear and educate their children. We recall an example of a father and mother, occupying a high position intellectually and socially, who rejoiced in the possession of an only son, "the apple of their eyes;" and this lad was pampered and cosseted from the cradle. He was never permitted to get a breath of heaven's fresh air, for fear he would "get cold." As he grew a little older he was allowed everything he wanted, selected his own bill of fare with the imperiousness of a young prince of the realm; and no matter how rich or unwholesome the food, he must not be denied. Sweetmeats and dainties were his constant attendants; exercise, fresh air, and good, substantial food he knew nothing about. This young prodigy's brain was an active one: he learned to read intuitively. At an early age he astonished his grandmother and his aunts by his proficiency in mathematics, and they were all united in the opinion that he would some day be president. This youth's brain was being "tickled with a straw;" no effort was made to develop his physical powers, to furnish him suitable brain food or muscle food. The whole plan of development was wrong from the start. One day this precocious boy was taken sick. "There was hurrying in hot haste" after the family doctor; and as he grew rapidly worse there was "a consultation," and it was decided that there was "water on the brain" (so the neighbors expressed it). And later there was a funeral, and the heart-broken parents laid the object of their fondest hopes in the dust, and ever afterwards blamed the incompetency and lack of skill of the attending physicians for the sad result. Now, when educated and refined parents set at defiance and trample upon all Nature's

laws, and then censure the doctor for failing to repair the badly botched job they have "put up" for him, it makes us in sympathy with Mrs. Archibald's funny rhyme, commencing,—

> "I knew a man, and knew his wife;
> Great learning had they from the schools,
> But candor forces me to say
> They were a pair of ——."

We have been citing exceptions, talking about peculiar people whom the doctor comes in contact with in practice. It is pleasant to be able to say that his lot is not cast continually in such uncongenial company. The great majority of a physician's patients are found in the ranks of those who consult a doctor when they are sick because they feel sure that the study and research of a life-time render him master of a science about which they know nothing.[1] They call upon him in time of sickness for the same reason they would go to their minister to learn of spiritual things, and not to one of the laymen; as they consult a lawyer for legal advice, not one of the neighbors; as they rely upon the artist and sculptor for paintings and works of art, not the house-painter or white-washer; as they invoke the aid of the draughtsman and architect if they propose to build a house, not the boss of a saw-mill. Every physician in active practice can point with an honest pride to scores of families whom it is a pleasure to serve professionally, so perfectly do they follow out his suggestions, so complete is their confidence in his judgment in all matters pertaining to sickness and disease. It is this that dignifies and ennobles the profession of medicine,—to be trusted in times of danger and peril when life and death are evenly balanced in the scale, and to win the lasting gratitude of those whom watchful care and judicious treatment have snatched from the grave. No other man makes such strong and steadfast friends as the doctor. More than this: If the doctor sees sometimes the bad side of human nature, it is his privilege, above other professions, to see also the good side of humanity. He comes in contact with many quiet,

[1] Some of the thoughts and a few of the paragraphs in this address are embodied in an essay entitled "The Confidence of the Public in Non-Professional Prescriptions," and read before the New Hampshire Medical Society.

unobtrusive lives, prosaic and common-place enough when viewed from the busy world's standpoint, and yet in themselves poems of charity, kindness, love. Among the hills and in the valleys of New England the doctor finds many good men and good women, rough and uncultivated it may be in the dainty mannerisms of modern society, awkward and diffident in the presence of strangers, and yet, when we come to know them thoroughly, they stand out in bold relief as the best exponents of a broad and all-embracing Christian charity, living pure, earnest lives, an honor to their day and generation; and yet the world knows not of them because their sphere is limited to some quiet neighborhood, or the four walls of some humble farm-house among the hills. Every physician of experience has watched such lives blossom and bear fruit, such fruit as charity, kindness, love, patience, resignation, faith—a heritage more to be coveted than wealth or fame.

In our rambles we have wandered away from "the doctor himself." Let us return to him again for the purpose of saying a word or two respecting his habits, or, rather, what should be his habits, of diet, his hours of rest and relaxation from labor. The doctor's profession is peculiar to itself in this respect. All the other trades and crafts, if they are regular in nothing else, are united in this, that their meals shall be served at proper intervals each day, and their hours of repose be unabridged. The minister, the lawyer, the man of business, all dine and sup at stated times with charming regularity, and woo "tired nature's sweet restorer" with the same precision—all save the doctor; and his breakfast and dinner hours are as variable as a comet's wanderings, and his winks of sleep are symbolized by a minus quantity. We mark out for our patients strict rules for periods of repose, regularity of diet, proper quantities of nutriment, to eat slowly, never to take food when fatigued. We enjoin upon our nurses never to enter the sick-room with an empty stomach;—and yet, as a profession, we violate some one of these rules every day of our lives. A great deal of our advice and counsel in these matters is on a par with the panegyric of the author of "Thomson's Seasons" in praise of early rising, whom Saxe wittily satirizes thus:

"Thomson, who sung about 'The Seasons,' said,
It was a glorious thing to rise in season;
But then he said it—lying in his bed
At 10 o'clock A. M.,—the very reason
He wrote so charmingly. The simple fact is
His preaching was n't sanctioned by his practice."

This uncertainty of the doctor's hours of refreshment and rest arises not from the fact that the physician has the stomach of a camel, or the sleepless eye of a Cyclops, but *primarily* out of the assumption of certain vested rights which community seems to feel it has over the whole time of the practitioner. For him, if he will allow it to be so, there are no Sundays, no uninterrupted nights of rest, no breathing-spaces, no holidays, no leisure for reading or culture, or the amenities of social life. All the other trades and professions, even down to the hod-carrier, have their regular business hours; they know in the morning just what they are to do for the day; but who can foretell the doctor's business for the morrow!—what perplexing cases may arise, how long he may be detained, on what frivolous pretext called miles away! There is urgent need of reform in this matter, and we look to the young men in the profession to set us some new fashions, and we "old Fellows" will be glad enough to follow them. A physician will prescribe a great deal more intelligently with a full stomach than with an empty one. The whole complexion of a disease is altered to the eye and to the sense of the prescriber when seen through the medium of a good dinner. A tired and hungry doctor never yet did his patient complete justice. It is manifestly our duty to make some rule each for himself in this matter, and live up or live down to it most religiously, and our patients will eventually be the gainers in the more careful attention and skilful treatment they will receive at our hands; and we shall be the gainers inasmuch as we shall set some limit to our working hours, while we claim the privileges of rest and recreation accorded to every other trade and craft under the sun.

In these desultory rambles in the "highways and byways" of professional life, we have spoken of some of the attributes essential to success; we have attempted to describe certain types of people who go to make up society, and are as thorns

and brambles cropping out here and there in a doctor's pathway; we have touched, not with the hand of a master, but with the "'prentice hand" of a fellow-worker, upon the demeanor and conduct of the physician in his various relations to his patients; but we have reserved for the last, one phase in the doctor's experience, concerning which we never remember to have seen anything written. However varied and devious our life-rambles, however protracted the journey, we all at length arrive at the same end. Hogarth, who depicted the frivolities and sins of mankind with the brush of a great master, first among satirists as he was supreme among painters, when the evening shadows were gathering about him, said,—"Now I will paint 'The End of all Things.'"

There is appointed for every human being under the sun a solemn hour when the old Kanuri proverb once again repeats itself: "The days being ended, there is no more medicine." Despite the doctor's skill, there comes a time when the resources of science are exhausted—"the pitcher is broken at the fountain, and the wheel broken at the cistern." What, then, is the office of the physician at the bedside of the dying in the chamber of death? Does not his duty often call him to be a witness in this most thrilling and impressive of human events, feeling, though he must, that his skill is unavailing? that he can only palliate and assuage, but cannot save? Yet friends in their distress and grief almost always summon the doctor, knowing, as they must, that he can do nothing that shall cause "the cup to pass from them," and yet they feel safer, calmer, more resigned because of his presence. Thus it happens that the doctor gets oftenest into history as the attendant at the death-beds of great men. At the bedside of Lincoln, of Garfield, of Grant, it is the gray-haired physician whom we see standing reverently by the illustrious dying—grave, sympathetic, watchful, noting the hurried respiration, counting the faltering pulse; and he it is who is first to break the sad news, "It is finished." Many physicians shun these solemn responsibilities. Said one of them, "I never want to see a patient after I am satisfied there is no earthly help." Perhaps there is a humiliating sense of failure away down in the doctor's heart that he has been unable *to save*—a feeling that makes him anxious to get away from the scene of

his fruitless labors. But we would urge every young physician, just starting in life, to put such thoughts far from him. Let him resolve always to do the best that can be done for the relief and cure of each and every patient intrusted to his charge, and then, if he fail, let him not reproach himself for the untoward result, or dwell upon it afterwards. It is often the doctor's duty, if not his privilege, in this solemn hour, to be the only one present capable of ministering words of consolation to the stricken ones. He need not of necessity be a churchman, nor invade the province of the clergy or the priest. If he have delicacy, tact, and a sympathetic nature, "it will be given him" to say the right thing at the right time and in the right way, and thus be able, above others, to point gently to the sources of consolation, and touch the secret springs of resignation and patience in the mourner's heart. And when we are casting about for these aids to comfort the afflicted, we turn not to the dainty conceits of the poets, not to the speculations and vagaries of the scientists, but we go back, as we must ultimately go for everything else, to the Bible. Fortunate are we, if we can carry into the stricken mourner's heart something of the sublime faith and resignation of the good Shunamite woman, who, in her overwhelming grief, her only son being dead, sought Elisha, the man of God, feeling that he had the power to save. We all remember the sacred story. As he saw her coming afar off, he called his servant and bade him "Run, now, I pray thee, to meet her, and say unto her, Is it well with thee? is it well with thy husband? is it well with the child?—and she answered, *It is well.*" And we recall, too, the wonderful recognition of that woman's faith. Call it a miracle, call it a parable if you will, but the central thought of her sublime resignation and faith remains ever present in our heart of hearts. "It is well!" Did you ever hear or read words more consoling or restful than these? Sounding down through the ages, wafted gently sooner or later into every mourning heart, comes that blessed assurance of the comforter, "It is well!"

Gentlemen of the Graduating Class:—As one of the representatives of the New Hampshire Medical Society, it is my pleasant duty to welcome you to the ranks of a great and noble

profession. You have given evidence of a careful and thorough preparation for your chosen work; and the excellent examinations you have sustained are the best evidences we can have that you will, in time to come, reflect credit and honor upon this ancient college and upon yourselves as well. The physician should be an educator, a leader in society so far as his particular calling is concerned, not a blind follower of others. He should aim to be recognized by some other insignia than "the hayseed in his hair." Do not get into ruts; do not run in grooves; do not be "cabined, cribbed, confined" by any 'ism or 'pathy, any creed or dogma. Never be content to stand idly by the wayside and simply keep time while the grand procession of progress goes by, but fall into the front rank and march with it. Be keenly alive to the beneficent influences of sunlight, fresh air, and wholesome sanitary laws and enactments. As bright, alert, conscientious physicians, you will, in the future, do a great work in educating *medically* the community in which you dwell, rendering its people more conversant with the immutable laws which govern "the house they live in," the rational treatment of disease, and the true aim, scope, and value of medication. Above all, strive by your lives to dignify and adorn the profession you have chosen. Be pure, generous, humane, noble, and

> "The nobleness that lies in other men,
> Sleeping but never dead, will rise in majesty
> To meet thine own."

Friends—all:—It was the saying of a quaint old New Hampshire schoolmaster, that "It is the duty of every man so to live in community as to leave behind either a welcome or a benediction." There comes to all of us at times a yearning after some sort of an earthly immortality. Like a timid child, we tremble at the thought of the unseen, the unknown, hidden behind the veil which separates us from "the silent land." The marble shaft, the "storied urn," the "animated bust," the illumined page, though mute, yet chronicle the virtues of the great.

> "Dum tacent, clamant."

Is there not an earthly immortality more satisfying, more to be coveted, than this? Is it not possible for all of us, whatever

our rank or station, to be so self-denying, so upright, so pure, generous, and noble in our lives, as to leave behind a blessed memory which shall endure long after we have mingled with the dust? And there comes to mind the benediction which closes Murray's beautiful Christmas story of John Norton; and the words are these: "Ah, friend! dear friend! when life's glad day with you and me is passed, when the sweet Christmas chimes shall ring for other ears than ours, when other hands shall put the green branches up, and other feet glide down the polished floor, may there be those still left behind to twine us wreaths, and say, 'We miss them so!'"

REPORTS OF DISTRICT SOCIETIES.

REPORT OF STRAFFORD DISTRICT SOCIETY.

CHARLES A. FAIRBANKS, M. D., SECRETARY.

The Strafford District Medical Society held its eightieth annual meeting at the American House, Dover, December 21, at 11 o'clock A. M., Dr. C. H. Horsch, Dover, president, in the chair.

The following physicians were present:

Dover—Drs. C. H. Horsch, L. G. Hill, C. A. Tufts, A. N. Smith, W. P. Watson, D. T. P. Chamberlin, C. A. Fairbanks, J. R. Ham, W. Hale, P. A. Stackpole, J. H. Wheeler, R. G. Blanchard, H. H. Stackpole, A. G. Fenner. Rochester—Drs. J. S. Daniels, C. E. Blazo. Milton—Dr. C. D. Jones. South Berwick, Maine—Dr. C. M. Sleeper. Portsmouth—Drs. J. W. Parsons, J. J. Berry. North Berwick, Maine—Dr. F. B. Morrill. Sanford, Maine—Dr. F. L. Durgin. Lebanon, Maine—Dr. J. S. Parker. East Barrington—Dr. G. E. Osgood.

The chair appointed the following committees:

On Nominations.—Dr. D. T. P. Chamberlin, Dover; Dr. C. M. Sleeper, South Berwick, Maine; Dr. F. L. Durgin, Sanford, Maine.

To Select and Assign Topics for 1888.—Dr. J. R. Ham, Dover; Dr. J. S. Daniels, Rochester; Dr. W. P. Watson, Dover.

On Necrology.—Dr. A. G. Fenner, Dover; Dr. A. N. Smith, Dover; Dr. C. A. Tufts, Dover.

The chair appointed as a new Council,—

Dr. J. S. Parker, Lebanon, Maine; Dr. L. G. Hill, Dover; Dr. P. A. Stackpole, Dover.

The Council reported favorably upon the credentials of the following named physicians, and they were elected members of the Society:

Dr. William P. Watson, Dover; Dr. Harry H. Stackpole, Dover; Dr. John J. Berry, Portsmouth; Dr. Frank B. Morrill, North Berwick, Maine; Dr. Charles D. Jones, Milton; Dr. George E. Osgood, Barrington.

The treasurer, Dr. C. A. Tufts, submitted his annual report, showing $19.72 in the treasury.

The report was accepted.

Dr. C. H. Horsch delivered the annual address, his topic being, "Some Facts and Theories Regarding Medicine."

Dr. A. Noel Smith read a paper on the subject, "Old Remedies *vs.* New Remedies."

Dr. P. A. Stackpole read an interesting paper, selecting as a topic, "Medicine *vs.* Nature."

Dr. W. Hale read a humorous poem.

Dr. D. T. P. Chamberlin, for the Committee on Nominations, submitted the following report, which was accepted:

President.—Dr. C. H. Horsch, Dover.

Secretary.—Dr. C. A. Fairbanks, Dover.

Treasurer.—Dr. C. A. Tufts.

Auditor.—Dr. J. R. Ham, Dover.

Orators.—Dr. W. P. Watson, Dover; Dr. F. B. Morrill, North Berwick, Maine.

Councillors.—Dr. L. G. Hill, Dover; Dr. J. S. Parker, Lebanon, Maine; Dr. S. C. Whittier, Portsmouth.

The above named officers were then elected for the ensuing year.

Dr. J. R. Ham, for the Committee to Select and Assign Topics for 1888, reported as follows:

Report on Obstetrics, Dr. C. D. Jones, Milton.

The Treatment of Threatened Phthisis, Dr. F. L. Durgin, Sanford, Maine.

On a topic of his own selection, Dr. C. M. Sleeper, South Berwick, Maine.

The report was accepted.

Adjourned at 2 o'clock for dinner.

The Society was called to order at 3 o'clock.

The paper of Dr. A. N. Smith was taken from the table, and the discussion was opened by Dr. Hill, and continued by Drs. Stackpole, Wheeler, Parsons, Ham, Blanchard, Berry, Watson, Morrill, and Horsch.

The paper of Dr. Stackpole was taken from the table, and discussed by Drs. Horsch, Hill, Smith, Ham, Sleeper, Morrill, and Hale.

Dr. Wheeler introduced the subject of the recent state law requiring physicians to report Variola, Scarlatina, Diphtheria, Typhoid Fever, and Cholera, etc.

Shall we report cases that are suspicious, but when we are not positive of a diagnosis of Diphtheria, etc.?

Discussed by Drs. Hill, Parsons, Smith, Stackpole, and Ham.

Our Duty in Enlightening the Public in Regard to the Contagiousness of Diphtheria was then discussed by Drs. Wheeler, Hill, Watson, Jones, Ham, and Parsons.

Dr. Parsons asked if it is compatible with the ethics of this Society to consult with regular homœopathic physicians.

It was agreed that it was not the question *where* a man graduated, but is he the exponent of an exclusive dogma, and does he hold himself to the public as such? If he does hold out to his patrons that he is a homœopathist in a quiet way, even though he does not publicly announce himself as such, it becomes our duty to withdraw from him.

Adjourned.

REPORT OF CENTRE DISTRICT SOCIETY.

H. C. CUMMINGS, M. D., SECRETARY.

This Society has held four quarterly meetings since the last meeting of the State Society.

JULY 12, 1887.—Dr. W. K. Wadleigh, of Hopkinton, read a paper upon "Conjunctivitis."

The discussion upon "Cholera Infantum" was opened by Dr. M. W. Russell, of Concord, who was followed by Drs. Eaton, Kimball, Fowler, Powers, Wadleigh, Child, and Cummings.

Several interesting cases were reported by different members.

OCTOBER 11, 1887.—The principal topic was the "Management of Unnatural Labor." The discussion was opened by Dr. G. C. Blaisdell, of Contoocook, and participated in by Drs. Felt of Hillsborough Bridge, Graves of Boscawen, Sanborn of Franklin, Fowler of Bristol, and Conn, Russell, Walker, and Cummings of Concord.

The discussion proved interesting and instructive.

JANUARY 10, 1888.—Several interesting cases were reported by different members.

The president, Dr. I. G. Anthoine, of Antrim, delivered the annual address.

Officers for the ensuing year:

President.—Dr. William Child, of New Hampton.
Vice-President.—Dr. E. E. Graves, of Boscawen.
Secretary.—Dr. H. C. Cummings, of Concord.
Treasurer.—Dr. C. R. Walker, of Concord.
Librarian.—Dr. I. A. Watson, of Concord.
Council.—Dr. G. M. Kimball of Concord, Dr. G. D. Towne of Manchester, Dr. T. Hiland of Concord.
Executive Committee.—Dr. G. P. Conn of Concord, Dr.

D. E. Sullivan of Concord, Dr. H. C. Holbroke of Penacook.

The annual banquet was served at 1 : 15 P. M.

APRIL 10, 1888.—Dr. Henry Dodge, of Goffstown, read a paper upon "Medical Education."

Dr. T. Hiland, of Concord, gave an informal talk upon "Yellow Fever."

The regular discussion, "Is the Isolation of Persons Afflicted with Phthisis Necessary or Desirable?" was then taken up and participated in by the members present.

REPORT OF CARROLL COUNTY MEDICAL SOCIETY.

M. A. HARMON, M. D., SECRETARY.

The Carroll County Medical Society met at Carroll County court-house, June 30, 1888.

The officers elected were,—

President.—Dr. A. D. Merrow, of Freedom.
Vice-President.—Dr. J. E. Scruton, of Union.
Secretary.—Dr. M. A. Harmon, of Ossipee.
Treasurer.—Dr. J. M. Leavitt, of Effingham.
Auditor.—Dr. J. W. Dearborn.

J. E. Scruton read a paper on "Dietetics of Infants," which was very interesting, and well discussed.

A committee was appointed to arrange for a semi-annual meeting.

Several new members were added.

The treasurer's report showed $6.75 on hand.

Our Society now numbers twenty-five, and is in a prosperous condition.

REPORT OF ROCKINGHAM DISTRICT MEDICAL SOCIETY.

A. C. BUSWELL, M. D., SECRETARY.

Present membership, twenty; increase during the year, two. Officers elected for the ensuing year:

President.—Dr. George H. Towle, of Deerfield.
Vice-President.—Dr. Ira H. Adams, of Derry.
Secretary and Treasurer.—Dr. A. C. Buswell, of Epping.
Executive Committee.—Dr. Chas. A. Morse of Newmarket, Dr. A. M. Foster of Candia, Dr. A. W. Mitchell of Epping.

We have two meetings annually, in May and November, and such specials as the executive committee or president and secretary may call.

Our membership is scattered, and off the railroads mostly, but we have excellent meetings when weather, travelling, and professional duties permit us to assemble ourselves together.

COMMITTEE ON NECROLOGY.

DR. J. J. BERRY, PORTSMOUTH.

OBITUARIES.

GEORGE AVERY CROSBY.

For more than a century the name of Crosby has been a magic word, an open sesame to human hearts that were breaking in pain, or sinking beneath the burdens of disease. Every village or hamlet in our state has been familiar with the name.

In the great emergencies that arise in our professional life, their words, thoughts, and methods have been quoted as authority, giving comfort to the afflicted, and light and strength to their professional brethren, even if their presence was not there to lift the darkness of the sick-room; and not only in New Hampshire, but throughout New England, has the name been as familiar as household words.

In the city of New York, the heart of this continent, the name of Crosby is as sincerely mourned by the profession and the laity as it is in our own state. New Hampshire never sent to the metropolis a larger-hearted, grander, nobler man to practise the art of medicine than Dr. A. B. Crosby.

Dr. Dixi Crosby's name will be remembered wherever Dartmouth's alumni find congenial fields to practise medicine, whether among the granite hills of our own state, under the softer skies of our Southern borders, or on the Pacific slope. Not only will his name be mentioned, but the memory of the maxims and precepts of this teacher, which were the fruitage of his brave, strong mind, will encourage and strengthen other hearts to battle successfully against the common enemy of mankind, disease.

The contributions to the art of surgery which we have received from the hands of Dr. Josiah Crosby, the father of Dr. George, should forever keep his name bright upon the record

as one who loved the profession, and labored earnestly and successfully for the welfare of suffering humanity.

The garlands have hardly faded that the loving hearts of this our capital city laid upon the last resting-place of Dr. Albert H. Crosby. What he was to this city, to the profession, to the world, you have already placed upon the record; yet you who knew him best will feel how great a loss we have sustained in his death, that cannot be expressed in words.

The death of Dr. Albert left Dr. George the sole representative of the Crosby family, who had adhered to the traditions of the fathers in devoting his life to the practice of medicine. He graduated from Dartmouth in 1852, and received his degree in 1855. In 1857 he went to Peru, South America, and there practised his profession till 1864, when he returned to Manchester. February 15, 1877, he was married at San Francisco to Mary J., daughter of the late Hon. A. J. Bryant, who survives him, and by whom he had one child, Olive, now ten years of age. In the year 1886 he was president of the New Hampshire Medical Society, and during the last year of his life he was chairman of the Manchester Board of Health.

What Dr. George Avery Crosby was as a physician you that met him in the sick-room know something; of his clear, sharp, incisive perceptive powers, striking for the right lead almost intuitively, following it up with tenacity, until he put his finger upon the salient point of the case, the objective point of disease; of his large hopefulness, brightening up your own flagging courage, possibly, and giving to your patient the best of all tonics, confidence; of his remarkable aptitude in the use of remedies, never at a loss, abundant in resources, when ordinary means failed meeting extraordinary conditions with extraordinary means, and often with the happiest results. His worth as a surgeon was shown in what he saved, and not in what he sacrificed. A crippled leg, in his estimation, was better than a wooden one, a fragment of a hand better than a hook.

He never shrank from a responsibility because it was an unpleasant one, nor lost his interest in a case because there was no pecuniary or professional benefit to be derived from it. He accepted criticism with the same indifference as fulsome praise. He was self-poised, self-reliant, quick to see and grasp all that

was new and valuable in the onward progress of medicine, while his brain was a storehouse filled with the best thoughts and methods of the past.

He had no fellowship with medical cranks, those who would reduce the practice of medicine to a system, a routine. Catnip tea was good enough if catnip tea was all that was indicated, but no agent was too active if he felt it was indicated; and because he dared to push his treatment where more timid men would fail, he oftener than they obtained the wished-for result.

Of what he was as a physician his patrons know quite as much as his *confrères*. No one in Manchester held his families more firmly than Dr. Crosby; when not able to obtain his services they often went without treatment rather than call in other physicians.

A generation must pass away before his place will be filled, in the estimation of a large portion of the community, which confided in him as the medical counsellor, and which loved him as the family friend.

Of what he was as a physician the members of the legal profession know something. Their calling should make them careful observers in selecting the men to appear in court as medical experts. No physician in this section of the state in which he practised was more frequently called to instruct the jury on the many intricate questions that arise from a medical standpoint in our courts than was Dr. Crosby. His opinions were decided, his language concise, to the point, and his testimony would not fail of impressing the jury with all the importance to which it was justly entitled.

What he was as a physician outside of the ordinary routine of the profession the citizens of Manchester can bear ample testimony. No one was more frequently consulted in regard to the various public enterprises than Dr. Crosby. His opinions were prized because his views were comprehensive and the result of careful thought. Everything relating to the sanitary wants of the public was to him a matter of primary importance. No personal friendship or political ties could save the blunderer in public affairs from the keen thrusts of his criticism. As a health officer he was efficient and judicious, seek-

ing to mold the actions of the authorities to secure the highest possible good without infringing on the rights of the individual. He left the impression of his strong, original mind upon every enterprise with which he was engaged. None will have more ample reason to mourn the loss of Dr. Crosby than the poor of Manchester, who have to submit to so many unhealthy conditions from their surroundings.

Of those who knew him intimately, but few ever fathomed the depth of the kind and generous feelings he held for all his friends, or knew how constantly they were in his thoughts and plans. He often covered up this gentler part of his nature with a sharpness and curtness that repelled instead of encouraged familiarity, like the chestnut hiding its sweet morsel behind its shield of spines. Knowing him intimately for eighteen years, and hardly a day passing during this time, when we were both in Manchester, that we did not have our half hour's or hour's chat, I feel confident when I assert that Dr. George loved, respected, and honored his father with the greatest tenderness. Most things he could forgive, but never could he speak but with bitterness of any one who knowingly or intentionally wounded his father's feelings; and yet during his father's last days he was the same calm physician that went into the sick-room of others. He was present at the autopsy; was critically careful of every step in its progress; removed, himself, a large calculus from the gall bladder, and kept it as a memento of his father's skill in diagnosing, he having, years before, expressed to Dr. George the opinion that such a calculus was there.

His tears (if he ever shed any) and his sympathies were never put on for public exhibition. His friendships were equally reticent. He never *seemed* to be, he simply *was*, the friend.

He had a beautiful hand: it was a Crosby endowment. You that have crossed palms with Dr. Dixi, Dr. Josiah, Dr. Ben., Dr. Albert, or Dr. George Avery Crosby, will indorse my words when I say, we grasp but few such hands in a lifetime,—beautiful in outline, clean and tender, gentle in their touch as a child's soft fingers, yet steady and strong when professional duty required of them service. The sympathies that governed their movements were exemplified in them.

To occasion unnecessary suffering was an offence neither to be condoned nor forgiven. To know, to know thoroughly, was a necessity of first importance; sympathies had nothing to do with this beyond that the only question to be considered was the greatest amount of good with the least suffering.

Few physicians could hold their patients in the great emergencies of suffering as did Dr. Crosby. Sometimes it was a harsh word that covered a wealth of tenderness; again, it was a witty sally, so full of humor as to make the invalid forget, for the moment, himself and the sick-room.

He made his presence felt and his visits memorable by the fine adjustment of his large brain and heart to the shattered nerves and drooping courage to which he ministered. His energy, his brilliant wit. his courage and kindness, seemed inexhaustible; they only ceased with the flagging current of life.

Physicians will come and go. The coming generation, we may hope, shall give a broader knowledge. a more perfect unstanding, of the problems connected with human life; and none turn with more of hopefulness to the future than those of us whose active lives have been linked with a generation of laborers in the profession who have passed away. Standing out to the front, we see the reënforcements coming that shall soon push through our lines and do faithful service for their race.

Is it not enough. if. when we drop out of line. the loving hearts of our comrades lay the tributes of love and honor on our resting-place. as we contribute this token to the memory of Dr. GEORGE AVERY CROSBY. whose life was spent for human good and duty? DR. W. W. WILKINS.

ALONZO F. CARR, M. D.

ALONZO FERDINAND CARR was born in Goffstown. October 26, 1817. and was the oldest son of Jesse and Mary (Smith) Carr. He was educated in the common schools of his native town. and at the academies at Sanbornton and Hopkinton. and at Franklin Teachers' Institute. He studied medicine with Dr. John Carr of Sanbornton and Prof. Dixi Crosby of Hanover. and was graduated from the medical department of Dartm

college in the class of 1839. Dr. Carr was a member of this Society for forty-seven years. He was its president in 1879, and its delegate to the American Medical Association at its meeting in Detroit. After graduation, Dr. Carr at once commenced practice in his native town, and for nearly half a century sustained the wear and tear of a very large and lucrative practice.

Dr. Carr was twice married, his first wife being Susan Raymond, a sister of Hon. John Raymond, of New York city. By this marriage there was one child, Carrie R., now the wife of Hon. Henry W. Tewksbury, of Randolph, Vt. Mrs. Carr died in 1857; and on September 26, 1859, he was united in marriage to Miss Fannie Parker, daughter of George Parker, Esq., of Goffstown. Mrs. Carr, and three children,—Edward, Charles, and Helen,—survive him. Dr. Carr died in Goffstown, December 16, 1887.

Such is the brief obituary record of a more than ordinary man. It gives you a few of the more striking incidents in his life's history, but tells nothing of the powerful brain now silent, of the indefatigable industry, the logical reasoning powers, the practised judgment, the acute perception, and sterling common-sense which characterized the man. Dr. Carr possessed these qualities in an eminent degree, and with them an unswerving honesty, a hatred of deceit, and a love for his fellow-man which gave him the reputation of being one of the best practitioners in the state.

Commencing practice among the friends and playmates of his youth, Dr. Carr soon proved an exception to the too often true saying, "A prophet is not without honor save in his own country." Having an unlimited capacity for work, and a sincere love for his profession, he soon became known as one whose judgment could be trusted in critical cases, and he early laid the foundation for the successful practice which followed. Dr. Carr's perceptive faculties were of a high order, and as a diagnostician he was very successful. A few sharp questions, a rapid physical examination, and his diagnosis was made, and it was almost always correct. He seemed to have an intuitive faculty: what ailed the patient seemed almost to be known to him before his examination had begun. This is a gift given to

some, but, unfortunately, rare. But for all this, he was a student: he was always abreast of the best scientific thought of the day. It was often a matter of interest to me to know how he could keep so well up; and one time I asked him, and his answer was very helpful. He said, "I always try to acquire one new fact each day, and on my rides I try to fix that fact firmly in my mind;" and by this means he kept up not only in medicine, but, practising forty years ago, when the family physician was often the family lawyer, he did much legal business for his patients; and I have heard good lawyers say that it was rare to find one who knew so much about legal procedure among the laity.

As a surgeon, Dr. Carr was conservative. He took an especial interest in Colles's fracture of the radius, and invented the splint which bears his name. This fracture was the subject of his presidential address before this Society, and he at the same time gave a description of his splint. As an obstetrician he was very successful, particularly in cases of placenta praevia, for he not only saved all of the mothers who came under his care, but one half of all the children. He did not dose much, and was never an empiricist: when he gave a medicine, he gave it without fear, but always with a definite end in view,—his rule being, when in doubt, to give nothing, unless some prominent symptom demanded temporary relief.

In political life Dr. Carr never sought honor, but political honors came to him without the seeking. He was often on the school board of his town; occasionally was moderator at town-meeting. He represented his town in the legislature of 1853, and his district as its senator in 1876.

Dr. Carr was a ready writer, but not a prolific one; he would occasionally send an account of some rare case to his favorite journal, and would sometimes drop into poetry when writing to some favorite correspondent. He was always interested in the early history of his town, and, when a young man, improved every opportunity to converse with the oldest residents; and he kept up this habit through his life, getting together a large amount of accurate information, from which he compiled the very interesting history of Goffstown, as published in the History of Hillsborough County. He was particularly

interested in tales of the Indians, and his favorite novelist was Cooper. An admirable story-teller, he would often stop his team in the road when he met a friend, tell some capital story, and drive on fast enough to make up for the time lost.

But Dr. Carr made one mistake: he worked too hard and too steadily. A vacation was a rare thing to him. There was no let up to the steady wear and tear of a large practice, but all day, and often all night, his horses plodded their way over hill and through valley; and at a time of life when he should have been enjoying the reward of years of hard labor, the tired brain gave way, the physical organization broke down, and silently and swiftly he went out of this world "into the world that sets this right." There is not in existence a more heroic, self-sacrificing person than the hard-worked, devoted country physician, and if all those whom this man had relieved could have stood around his coffin, what a multitude there would have been! Let us hope that now, in the sunlight beyond the purple hills, he is enjoying the rest which only they can enjoy who earned it here.

The loss to me was a personal one. He stood by the bedside of my mother, and saw the eyes of all of us open to the light of this world. Years after, it became my sad duty to stand by his bedside as the light of this world went out of his. To my brother and me he was the kindest of counsellors during the early part of our professional life. You who were wont to meet him here, with others who have gone to be met no more in this life, I fancy I hear you saying, as does one of our New England poets,—

> "As life runs on, the road grows strange
> With faces new, and near the end
> The milestones into headstones change,
> 'Neath every one a friend."

FRANK BLAISDELL, M. D.

JEREMIAH F. HALL, M. D.

This well known physician departed this life at his residence, March 1, 1888. Although having been in poor health, he was in perfect possession of all his faculties until the last moment,

directing his personal and family affairs with the utmost clearness.

Deceased was born at Northfield, N. H., December 2, 1816. He was educated at Sanbornton and Franklin academies, and studied medicine at Dartmouth Medical College, receiving his medical diploma from the same institution. He settled at Wolfeborough in 1837, where he resided and practised some twenty-four years.

On the 28th of October, 1862, Dr. Hall was commissioned surgeon of the 15th N. H. Infantry, Col. Kingman, and joined his regiment at New York city. Here he was taken ill, but proceeded with his command to Carrollton, La., the voyage by transport serving to aggravate his complaint. Finding no relief during his stay in Louisiana, he was offered leave of absence, which he declined, preferring to leave the service, his muster-out dating January 19, 1863. He therefore resigned and came home to Wolfeborough. Shortly after, he went South, to Washington and Virginia, for the benefit of his health.

While at the capital, he was appointed surgeon of the Board of Enrolment of the First District of New Hampshire, his commission dating May 6, 1863, and ordered to this city, arriving in Portsmouth shortly afterward. He remained in this position until the dissolution of the board, and was discharged to date, August 1, 1865, his first discharge being for disability, the second being for the close of the war.

A few years later the doctor was appointed examining surgeon of pensioners, a position which he held at the time of his death. He was a member of the New Hampshire State Medical Society, and was its president in 1872; was formerly a member of Carroll County Medical Society, and had been its president; and was also an honorary member of the Strafford County Medical Society. In 1874 he was elected to the New Hampshire senate from this district, and was reëlected in 1875.

For eleven years he held the position of director in the Lake National Bank at Wolfeborough, was trustee of the Five Cent Savings Bank at the same place, and president of the board of trustees of Wolfeborough academy. He has been director and vice-president of the Portsmouth Trust and Guaranty

Company, and was its president at his decease, having held the latter office ten years. He served three complete terms as trustee of the N. H. Asylum for the Insane, and was recently reappointed. He was alderman of the city of Portsmouth two years.

Dr. Hall was twice married. His first wife was Annette A. Livy, of Wolfeborough, whom he wedded December 14, 1837. To them were born a daughter, the wife of Prof. Blunt of Fort Collins, Col., and two sons, Henry F. and Edward H., the former a practising physician, the latter a banker and real estate broker, both residents of Fort Collins. The second marriage was with Miss Frances E., eldest daughter of the late Charles E. Laighton, of this city, October 24, 1872. Of the latter union there is no issue.

Dr. Hall will be greatly missed, not only by his townsmen, but by the medical profession throughout the state. He was recognized by all as a careful and conscientious practitioner. As a man, he maintained a deservedly high standing in the community. J. J. B.

GEORGE L. MASON, M. D.,

Died at his home in Moultonborough, N. H., May 14, 1888, at the age of thirty-three years and six months.

Dr. Mason was born in Moultonborough, N. H., October, 1854, and was the oldest son of Dr. William H. H. Mason, who is also a distinguished member of our Society. His early life was passed at Moultonborough. He attended school at Tilton, New Hampton, and Plymouth, and was a graduate of the State Normal School. He taught school for several years in his native town. He early showed a decided taste for his father's profession, and studied medicine with his father, who was engaged in a very extensive practice. He attended medical lectures at Dartmouth college, and afterwards at Bellevue Medical College, New York, from which he graduated in the year 1876.

He immediately began the practice of his profession in Moul-

tonborough, where he remained for about two years. He married Miss Emma Evans, a most estimable young lady of his native town. He removed to Laconia, N. H., in 1878, where he lived for about five years. He did a large and laborious business, which proved too much for his strength, for his health gave way, and he was obliged to give up his practice. He visited Florida and the West, hoping that rest and a milder climate might restore the vigor he had lost.

After some months in California, he returned temporarily improved, and began to practise at Meredith Village; but his health failed again, and he removed to his home in Moultonborough, where he has since lived and practised at intervals when his health would permit. During the last two years he has been a great sufferer from repeated attacks of acute rheumatism, which complicated the heart, and finally caused death on the 14th of May, 1888.

In recording the personal attributes of our late brother, too great praise cannot be given to the many good qualities of mind and heart which he possessed. Few men have acquired so fixed and enduring a place in the esteem and affection of those who knew him. Considerate, gentlemanly, and highly conscientious, he was entitled to the full confidence and respect which were so freely given him in each of the towns where he lived and practised his profession.

His loss is most keenly felt both by the communities where he has lived and by the members of this Society.

S. V.

DR. OSCAR F. FASSETT.

Dr. Fassett, of St. Albans, Vt., died July 22, 1887, after a painful illness of many months' duration.

As an honorary member of this Society, and by reason of his extended acquaintance among the profession of this state, he is justly entitled to recognition at the hands of your committee.

He was the eldest son of Anson Fassett, and the oldest of

four children, and was born at Enosburgh Falls, Vt., February 28, 1827.

He had excellent educational advantages in the public schools of his native village, and at the academy at Bakersfield. He chose the medical profession, and graduated with high honors at the Vermont Medical College at Woodstock in 1851, then in a flourishing condition. He subsequently took a course of medical studies in New York city, and commenced the practice of medicine at East Berkshire, where he remained for twelve years. He went to St. Albans in 1865, where he continued in the discharge of his professional duties until his death.

He was eminent in his calling, and as a physician and gentleman his reputation stood deservedly high throughout the state. He was president of the Vermont Medical Society for two years, 1864 and 1865, and always took a deep interest in the organization. He was regarded by the ablest physicians as being in the front rank of his profession.

Dr. Fassett had a large practice, and enjoyed the confidence and esteem of the people within the circuit of his labors in a wonderful degree.

Dr. Fassett was married in October, 1859, to Miss Fannie L. Clapp, of Montgomery, who survives him. They had no children.

He is mourned by a wide circle of friends, to whom he had endeared himself through many years of successful practice. His conscientious devotion, his watchfulness, his tenderness, his enlightened judgment, his hearty sympathy,—all these attached him closely to those to whom he ministered, and won the cordial respect and confidence of his fellow-citizens.

J. J. B.

DR. JESSE APPLETON SAMBORN,

Who died at Plymouth, June 15, 1888, was the oldest son of Dr. John Samborn, and was born in Meredith, December 5, 1820. His early education was received in the various schools of the state, after which he entered Dartmouth Medical College, from which institution he graduated in 1841.

The first few years of his professional career were passed in South Gardiner, Mass., and Wolfeborough, N. H., but for the last years of his life he practised medicine in Campton and Plymouth.

He was a skilful and conscientious physician, and the few notes of his life which we have been able to secure form a most meagre and unsatisfactory history of the man, while they utterly fail to do justice to a professional career which was both brilliant and honorable.

J. J. B.

ANNUAL MEETING, 1888.

LIST OF THE FELLOWS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY.

N. B. The secretary requests members to examine this list closely and notify him of any corrections to be made, as it is intended to publish the roll of members annually, and it is desirable to make it as accurate as possible. Members allowing themselves to become three years in arrears for dues will find their names dropped from the roll, as it is construed that they no longer desire to remain connected with the society. Members are not entitled to a copy of the Transactions until their dues are paid to the Treasurer. An asterisk (*) indicates a retired member.

Admitted.	Name.	Residence.
1872.	Abbott, A. W.	Laconia.
1882.	Abbott, Edward	Tilton.
1876.	*Abbott, O. D.	Manchester.
1873.	Adams, D. S.	Manchester.
1875.	Adams, Ira H.	Derry Depot.
1884.	Aiken, F. J.	Pittsfield.
1888.	Aldrich, W. H.	Marlborough.
1886.	Allen, Bradford	Nashua.
1878.	Allen, Carl A.	Acworth.
1886.	Allen, George E.	Bradford, Mass.
1876.	Anthoine, I. G.	Antrim.
1871.	Atkinson, W. P.	Eaton.
1882.	Bancroft, Charles P.	Concord.
1858.	Bancroft, J. P.	Concord.
1837.	*Bassett, Thomas	Kingston.
1885.	Bean, J. W.	Lyme.
1873.	*Berry, Ed. S.	Concord.
1886.	Berry, John J.	Portsmouth.
1886.	Blair, A. W.	Dorchester, Mass.

Admitted.	Name.	Residence.
1878.	Blaisdell, Frank	Goffstown.
1869.	Blaisdell, George C.	Contoocook.
1886.	Blake, Chas. A.	Bridgewater, Mass.
1885.	Blake, W. P.	Farmington.
1879.	Boutwell, Henry T.	Manchester.
1883.	Boutwell, Henry W.	Manchester.
1882.	Bridgman, Geo. H.	Elizabeth, N. J.
1888.	Brigham, Frank E.	Salmon Falls.
1869.	Brooks N. G.	Charlestown.
1865.	Brown, J. Frank	Manchester.
1871.	Brown, J. P.	Taunton, Mass.
1870.	*Burnham, A. C.	Hillsborough Bridge
1856.	Burnham, Hosea B.	Manchester.
1879.	Buswell, Albert C.	Epping.
1884.	Burns, Robert	Plymouth.
1880.	Butler, Jacob N.	Lempster.
1856.	Carbee, S. P.	Haverhill.
1867.	Carr, E. L.	Pittsfield.
1869.	Carter W. G.	Concord.
1869.	*Carlton, C. A.	Salem, Mass.
1879.	Carvelle, H. de W.	Manchester.
1874.	Chase, W. D.	Peterborough.
1873.	Chamberlain, D. T. P.	Dover.
1867.	Child, William	New Hampton.
1883.	Chesley, A. P.	Concord.
1884.	Clark, Levi	Loudon Ridge.
1876.	Cogswell, J. R.	Warner.
1865.	Conn, G. P.	Concord.
1869.	Cook, George,	Concord.
1877.	Crittenden, R. A.	Haverhill, Mass.
1881.	*Cummings, A. R.	Claremont.
1884.	Cummings, H. C.	Concord.
1845.	*Currie, T. H.	Lebanon.
1882.	Currier, E. H.	Manchester.
1873.	Currier, D. M.	Newport.
1879.	Cutler, John H.	Peterborough.
1873.	Cutter, George I.	West Swanzey.
1878.	Danforth, M. S.	North Weare.
1867.	Davis, James A.	Lebanon.
1876.	Dearborn, D. S.	Milford.
1854.	Dearborn, S. G.	Nashua.

Admitted.	Name.	Residence.
1869.	Dinsmoor, S. M.	Keene.
1881.	Dinsmore, W. H.	Nashua.
1878.	Dix, M. C.	Hinsdale.
1878.	Dodge, C. M.	Manchester.
1888.	Dodge, Henry	Goffstown.
1883.	Drake, C. B.	West Lebanon.
1840.	*Eastman, J. C.	Hampstead.
1883.	Eastman, O. D.	Woodsville.
1879.	Eaton, Frank	East Weare.
1879.	Emerson, A. L.	Chester.
1880.	Emery, Alfred E.	Penacook.
1866.	*Evans, Earl	Winchester.
1878.	Fairbanks, Chas. A.	Dover.
1877.	Felt, M. H.	Hillsborough Bridge.
1857.	*Fenner, A. G.	Dover.
1883.	Fisher, E. C.	Sunapee.
1883.	Fisher, F. P.	Enfield Center.
1883.	Flanders, Chas. F.	Manchester.
1868.	Foster, T. S.	Laconia.
1862.	Fowler, H. B.	Bristol.
1885.	French, Edward	Concord.
1880.	French, Henry M.	Concord.
1865.	*French, Leonard	Manchester.
1875.	French, L. M.	Manchester.
1872.	Frost, Carlton P.	Hanover.
1882.	Frye, Edmund B.	Boston, Mass.
1839.	*Gage, Charles P.	Concord.
1887.	Garland, William R.	Campton Village.
1882.	George, Charles F.	Goffstown.
1881.	Gibson, Charles R.	Woodsville.
1855.	Gould, True M.	Raymond.
1865.	Goodhue, D. P.	Springfield.
1853.	*Goss, Oliver	Lake Village.
1886.	Goss, O. W.	Lake Village.
1885.	Gould, Chas. R.	Tilton.
1883.	Gove, George S.	Whitefield.
1883.	Grant, L. E.	Great Falls.
1869.	Graves, E. E.	Boscawen.
1869.	*Graves, F. W.	Woburn, Mass.
1887.	Gross, Chas. W.	Milton.

Admitted.	Name.	Residence.
1869.	Ham, J. R.	Dover.
1882.	Hammond, C. B.	Nashua.
1863.	Hanson, C. W.	Northwood Ridge.
1887.	Harmon, M. A.	Ossipee.
1888.	Harriman, A. H.	Laconia.
1880.	Hatch, G. W.	East Wilton.
1888.	Hawkins, F. D.	Meredith.
1887.	Hayes, John A.	Somersworth.
1885.	Hazelton, G. W.	Raymond.
1839.	Hill, L. G.	Dover.
1886.	Hiland, Thomas	Concord.
1888.	Hodsdon, E. W.	Centre Sandwich.
1882.	Hoitt, Geo. C.	Manchester.
1872.	Holbrook, Guy	Colebrook.
1885.	Holbrook, Henry C.	Penacook.
1888.	Holcombe, C. H.	Brookline.
1886.	Houghton, E. F.	Claremont.
1864.	How, L. B.	Manchester.
1882.	Hutchinson, H. S.	Milford.
1881.	Jackson, Joseph A.	Manchester.
1884.	Jarvis, Leonard	Claremont.
1876.	*Jarvis, S. G.	Claremont.
1876.	Jones, D. W.	Portsmouth.
1883.	Jones, F. P.	Mill Village.
1887.	Jones, Fred. W.	New Ipswich.
1883.	Judkins, F. L.	Lynn, Mass.
1884.	Junkins, William O.	Greenland.
1867.	*Kelley, C. K.	Plymouth.
1866.	Kimball, George M.	Concord.
1870.	Kimball, J. R.	Suncook.
1860.	*Kingsbury, C. F.	Lyme.
1882.	Lanouette, Joseph E. A.	Manchester.
1869.	Larabee, G. H.	Suncook.
1876.	Lathrop, M. C.	Dover.
1885.	Lee, Henry H.	Wells River, Vt.
1885.	Lemaitre Joseph E.	Manchester.
1884.	Leet, George C.	Canaan Street.
1885.	Leonard, William S.	Hinsdale.
1887.	Lougee, George W.	Freedom.
1856.	*Lougee, I. W.	Rochester.

Admitted.	Name.	Residence.
1854.	*Manahan, Val.	Enfield.
1873.	Manchester, C. W.	Lebanon.
1885.	Manchester, Frank	White River Jct., Vt.
1887.	Marble, Henry.	Gorham.
1882.	Mason, J. E.	Manchester.
1847.	*Mason, W. H. H.	Moultonborough.
1888.	McGregor, G. W.	Littleton.
1887.	Megrath, Wm. A.	Loudon.
1888.	Merrill, J. F.	Scytheville.
1885.	Merrow, A. D.	Freedom.
1882.	Mitchell, Ezra, Jr.	Lancaster.
1882.	Morse, Charles A.	Newmarket.
1881.	Moffett, Frank T.	Littleton.
1874.	Moody, William B.	Franconia.
1880.	Morrill, S. C.	Concord.
1883.	Munsey, G. F.	Greenville.
1880.	Nelson D. B.	Laconia.
1887.	Newell, Henry E.	Derry Depot.
1873.	Nichols, C. B.	Sacramento, Cal.
1880.	Nute, W. H.	Farmington.
1883.	O'Brien, C. C.	Groveton.
1868.	Odell, J. W.	Greenland.
1888.	Osgood, Geo. E.	East Barrington.
1881.	Otis, E. O.	Exeter.
1874.	Palmer, Haven	Plymouth.
1859.	*Parker, David T.	Farmington.
1885.	Parker, H. R.	Dover.
1868.	Parsons, John W.	Portsmouth.
1856.	Pattee, Luther	Manchester.
1874.	Patten, J. L.	Washington, D. C.
1850.	*Peabody, L. W.	Henniker.
1879.	Perkins, F. B.	Londonderry.
1884.	Pettingill, James B.	Amherst.
1853.	*Phillips, B. H.	Suncook.
1869.	*Pike, C. C.	Peabody, Mass.
1877.	Porter, W. B.	Walpole.
1882.	Powers, G. H.	Concord.
1880.	Pray, J. W.	East Northwood.
1855.	Pray, T. J. W.	Dover.
1882.	Preston, J. W.	Great Falls.
1883.	Prouty, Ira J.	Keene.

Admitted.	Name.	Residence.
1884.	Randall, F. D.	Leavitt Hill.
1886.	Raynes, J. B.	Lebanon.
1877.	Richardson, A. P.	Walpole.
1857.	Roberts, S. W	Wakefield.
1851.	*Robinson, A. H.	Concord.
1887.	Robinson, John F.	Manchester.
1879.	Robinson, J. L.	Manchester.
1878.	Russell, J. Wallace	Concord.
1869.	Russell, M. W.	Concord.
1884.	Sanborn, C. A.	Redlands, Cal.
1880.	Sanborn, G. H.	Henniker.
1858.	Sanborn, J. H.	Franklin Falls.
1881.	Sanborn, T. B.	Newport.
1887.	Scott, N. H.	Wolfeborough.
1870.	Scruton, J. E.	Union.
1883.	Sleeper, W. J.	Westford, Mass.
1888.	Smith, A. Noel	Dover.
1888.	Smith, Henry O.	Hudson.
1870.	*Smith, J. Ranlet	Gloucester, Mass.
1885.	Smith, M. F.	Hampton.
1854.	Smith, W. A.	Campton Village.
1879.	Smith, W. T.	Hanover.
1888.	Spaulding, F. W.	Epping.
1844.	Stackpole, P. A.	Dover.
1882.	Staples, J. W.	Franklin Falls.
1887.	St. Germain, Joseph P.	Suncook.
1875.	Stillings, F. A.	Concord.
1880.	Stone, M. T.	Troy.
1876.	Sturtevant, C. B.	Manchester.
1885.	Sullivan, James	Manchester.
1841.	*Swett, J. L.	Newport.
1886.	Taft, A. H.	Winchester.
1877.	Tolles, C. W.	Claremont.
1878.	Towne, G. D.	Manchester.
1874.	Tucker, E. M.	Canaan.
1844.	*Twitchell, G. B.	Keene.
1887.	Underhill, George A.	Nashua.
1887.	Vittum, Stephen	Laconia.
1880.	Wade, E. A.	Salem Depot.
1887.	Wadley, W. K.	Hopkinton.

Admitted.	Name.	Residence.
1878.	Walker, C. R.	Concord.
1886.	Wallace, Ellen A.	Manchester.
1879.	Watson, I. A.	Concord.
1860.	*Waterhouse, William	Barrington.
1887.	Way, Osman B.	Claremont.
	Weaver, C. A.	New Boston.
1882.	Weymouth, G. W.	Grafton.
1845.	*Weymouth, H. A.	Andover.
1877.	Welch, S. N.	Sutton.
1858.	*Wheat, Thomas	Manchester.
1863.	Wheeler, J. H.	Dover.
1853.	Wheeler, John	Pittsfield.
1878.	Wheet, John C.	Bristol.
1872.	Whittier S. C.	Portsmouth.
1857.	Wilkins, W. W.	Manchester.
1878.	*Wilson, J. W.	Contoocook.
1883.	Woodward, J. N.	Nashua.
1879.	Young, Leander J.	Haverhill, Mass.

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